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CITY GOVERNMENT

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AMERICAN WATER WORKS CONVENTION

Opens at Buffalo with a Large Attendance From All Sections of the Country.

Papers of John B. Heim, L. N. Case, Dow R. Gwinn, S. E. Babcock and T. W. Yardley, in Full.

[SPECIAL TELEGRAM TO CITY GOVERNMENT.]

Buffalo, N. Y., June 14.—The eighteenth annual convention of the American Water Works Association was called to order this morning by President John Caulfield. The attendance was large and representative of all sections of the country. The annual reports of the officers showed that the association was in a most prosperous condition. All the delegates are highly pleased with the cordial reception and entertainment accorded them by the people of Buffalo. Pleasure excursions to Niagara Falls, Toronto and Lockport are on the programme for the next few days. Among the papers read before the convention were the following:

WATER METERS AND RATES.

BY JOHN B. HEIM,
SUPERINTENDENT CITY WATER WORKS, MADISON, WIS.

Meters.—At our convention in Atlanta, Ga., in 1895, I gave a paper entitled "Our Experience with Water Meters," giving the splendid results our city obtained by adopting the "General Meter System" up to that time. My object was to encourage other plants to do likewise and enjoy the benefits of the system. I hoped also to assist our co-workers in meeting the objections raised to the meter system by giving the practical results, to act as an entering wedge in aiding and assisting in the perplexity of securing an abundance of water, and at less cost. I trust I succeeded, in many instances, in helping to establish such facts and that the results have been as good, if not better than our own. There are still many of our co-workers handicapped and discouraged by their citizens and patrons. The patrons fear larger water bills, and that they will be stinted in the use of water. This is all wrong; at least, it has so proven itself with us. This being the case, I felt it would not be amiss to give the practical results we have obtained in fuller detail, with the renewed hope that I may assist others in the adoption of a "General Meter System." Ten years ago the prejudice against the measuring of the water was so strong that it often cost the official head if insisted upon. Because of the rapid strides and satisfactory results of the meter system since then, wherever adopted, it ought not to be as difficult to procure its introduction now. A careful and shrewd business manager cuts off all unnecessary waste, and at the end of the year finds his gains. Why should he not do the same with the water? Because it appears that the water drawn from the lakes or rivers seems plentiful, and therefore ought to be free as air, is not good reasoning. People forget that it requires machinery and fuel to pump and furnish same and that every gallon costs money. There is no need for stinting the plentiful use of water, and the rates can be fixed accordingly. The mission of the meter is not to deprive us of plenty of water, but to prevent its waste. The tendency of all of us is to get as much as we possibly can for little or nothing; we always want the lion's share, if only some one else pays for it. Indirectly, we may probably pay doubly for it.

JOHN B. HEIM.

To my utter astonishment, I noticed in the water works journals of last July that a citizens' committee of Savannah, Ga., petitioned its water commissioners to abolish the meter system, claiming that the meter system tends to restrict the legitimate use of water, thereby endangering the health of the city, and, aside from that, that their meters were so defective as to give rise to serious irregularities and injustice. From statements given, the city owned and had placed 200 meters on one street, controlled and repaired them. After giving this committee a hearing and investigating the charges, the commissioners decided to abandon the meter system and to return to the old plan of assessing the rates. Can it be possible that after *investigating these charges*, such should be the outcome? It is stated that the supply is drawn from deep wells, and the water is of excellent quality. Nevertheless, they abolish the meter system, knowing that such a supply is limited.

It is a mistaken idea that a meter system restricts a legitimate or a plentiful use of water. There is not a water works in existence that has adopted the meter system that for one moment desires to restrict the use of water for necessary purposes and plenty of it, desirable from a sanitary standpoint. Their only aim is to restrict the careless waste and leaks. We find in our city that the water meter is a fairly accurate instrument, and we are anxious for the day when every tap is metered. We teach our takers how to read the meter; we purchase only the straight-reading meter, so that any one in the family can read it, and we ask them to read it when we find an unusual waste. We call their attention to it and assist them in reading it wherever we can, and to-day we have but little complaint of the water bills. If there are complaints, they are from patrons who pay no attention to our notice or neglect to repair the leaks. The proper course to pursue to prevent stinting in the use of the water is to adopt a minimum rate. Then establish a rate that will give plenty of water for all necessary purposes. The selling of water by meter measurement is the only fair and just principle. The careful person, as well as the extravagant, gets value received. Under the schedule rate, the careful person pays for the extravagance of the other. Under the meter system, if a taker has a large lawn, takes pride in it, sprinkles all day, he pays for it the same as if he desires the best in the market for which he is willing to pay. Under the schedule rate the other takers are obliged to assist him in keeping his lawn fresh and green. Our meter system is now in its tenth year and very popular.

Should we decide to go back to the schedule rate, there would be such an uprising in opposition that woe be to the man who would father it.

Our schedule rates are: For a six-room house, $5.00; one water closet, $2.50; one bath tub, $3.00—$10.50 per annum. At this rate we collect for the first six months in advance, for a new building or an old service, where a meter has been placed; after that per record of the meter the preceding six months. We close our records the first of June and December, to be ready for collection by the first of January and July. Here is where we discover the great objection to the schedule rate. We considered our schedule rate, before adopting the meter system—a very low one—but the meter rate brings the water rent considerably less where there is no waste, and naturally the patrons want the lesser rate. Another objection to the meter system is the fear of the financial results. We will give you a few illustrations of our experience and you can judge for yourself.

1. In 1888, when we adopted the "General Meter System" and commenced placing the meters, at the expense of the city, we discovered some very great leaks. The leaks were not repaired for several days, so that we could see what they amounted to. I will only mention three. In one instance the city received under the schedule rate $12 per annum; the waste under meter amounted to $600 per annum; the annual average payment now, under meter, with more fixtures, is $42.48. Another instance: The annual schedule rate was $32, the waste was $912; the annual average meter rate now is $368.33. The third instance: The city received, under schedule rate, $60 per annum; the waste amounted to $949. The city now receives on an average of $45.68 per year.

2. To further illustrate, I will give the saving of the water and fuel. We will give the pumpage of the two coldest and the two hottest months of the year previous to the adoption of the meter system, and the ninth year of the meter system, with 263 takers still without meters. In the month of December, 1886, we had 980 takers; we pumped 25,517,200 gallons of water. December, 1896, with 2,334 takers, we pumped 24,092,500 gallons, a difference of 1,424,700 gallons less than in 1886. In January, 1887, 980 takers, we pumped 23,450,100 gallons. January, 1897, 2,334 takers, we pumped 25,458,000 gallons; 2,008,000 gallons more than in 1897. July, 1887, 980 takers, we pumped 24,239,500 gallons. July, 1897, 2,334 takers, 27,845,500 gallons; 3,606,000 more than in 1887. August, 1887, 980 takers, we pumped 25,917,500 gallons of water. August, 1897, 2,334 takers, we pumped 22,487,500 gallons; 3,430,000 gallons less than in August, 1887. Only 760,000 gallons more in 1896-7, with 1,354 more consumers, and an estimated free water of 131,000,000 gallons of water, against 35,000,000 gallons in 1886-7. The average pumpage per day in 1887 was 715,885 gallons; in 1897, only 794,446 gallons. In 1887, with a minimum of $6.00 per annum, 980 takers and no meters, we collected $13,479.69. Last year, with a minimum of $4.50 per annum, 2,071 meters and 2,334 takers, we collected $21,471.64.

Our consumption of coal in 1887 was 1,124,200 pounds, or 1,148 pounds for each taker; last year it was 1,470,600 pounds, or 630 pounds for each taker. We commenced placing our meters on the 21st of May, 1888; on the 1st of October we had 210 placed. We therefore cannot consider this year in the saving of fuel, but as we checked some very flagrant wastes, I have brought it within my calculations on the actual saving.

During these ten years, averaging 207 meters added each year, the actual saving on fuel was $16,893.19, a saving of over 44 per cent. on the investment of meters. Last year the saving on fuel was $2,066.82, our coal being $3.99 per ton, against an average of $5.25 per ton heretofore. In 1887 we pumped for each taker 266,642 gallons. In 1897 only 124,667 gallons, less than half, and including over 4 per cent. more free water.

3. Another illustration of the reform that the meter system has brought about is in collecting water rents. One patron under the schedule rate paid the city $22.50 per annum, a meter was placed, and the first monthly reading showed a leak. The patron was notified; he insisted it was the meter and wanted it removed, which of course was not done. When he came to pay the water rent he found a bill of $15.94 for six months, and he again insisted it was the meter. We offered to test it, let him supervise it in every shape or manner, and if the meter did not register exactly he would not have to pay a cent. He accepted our offer, tested and found our statement correct, but being still unsatisfied, asked for another meter. We gave him another, but this meter showed the same leakage. Then he followed our advice, found the leak and repaired it, and his average water bill since (now nine years) has not been over $15.34 per annum.

In another instance, where the general average was between $3 and $4 per annum, a leak occurred; no attention was paid to us; bill amounted to $27.38 and had to be paid, and is now back to its original average. Again, three tenements on one service; three separate meters independent of each other, same fixtures to each; one paid $4.50, the other $9.03, and the third $24.31 per annum—the latter a very careless tenant, indifferent because the landlord paid the water rent. The three are now down to $4.50 per annum each. Another tenement family during three years paid on an average of $13.18 per annum. This family moved out and a new family moved in. The water rent advanced to $16.01 in six months, allowing the water closet to run continually. The next bill was only $5.20.

Another house rated under schedule $20.50 per annum; the meter reduced it to $14.37 on an average. A new servant took a notion to let the water run and increased the bill to $22.81. It is now back to the original.

Another instance, where the average consumption is 1,500 cubic feet per month, a leak brought it to 44,653 cubic feet in one month.

Another, where house was rated under schedule, with sprinkling of lawn, at $28.50 per annum, the average under the meter is $38.30.

A boarding house, where the annual meter rent under different tenants did not go beyond $15.91 per annum, a new tenant brought it to $42.20 in three months. We shut these parties off, because they would insist upon letting the water run.

Another instance: A meter was ordered placed in a residence where there was no sewer connection. Meter indicated an underground leak of 578 cubic feet the first month. There was no cellar under the kitchen; only one faucet. We notified the party. Answer: "It is the meter." Next month it had increased to 801 cubic feet; next month to 926. It was still in the meter. Next month it had increased to 1,309 cubic feet, and, finally, heed was paid. Upon examination leak was discovered in the check and waste being worn out. A new check and waste was placed in, and the following month brought the registration down to 245 cubic feet and an admission of the correctness of the meter.

Will give but another instance—that where a party took the record of the meter every evening before going to bed, for a period of six months, testing and measuring, unknown to the department. He filed his observations with us, stating that any one that doubted the correctness of the water meters, to show them his records and send them to him; he would give his experience. He will swear by the meter. Another party who had no faith in the meters made the same observations, with the same results. He voluntarily came to us to state his conversion, and gave

us authority to use his name. Like one of old, he was made strong in the faith by the use of water. I could enumerate a great many more instances, and also of those that save from 10 to 40 per cent. and more of the schedule rate without stinting themselves in the use of water; but let these suffice to show what a meter system does.

One other objection to the meter system is the free water craze. The cry is, water should be free as air. Such it is when vouchsafed to us by a kind Providence, in the form of rain or snow, but it also required the energy of the elements, through the laws of nature. If we have a well at our doorside, it costs money to build and repair the same. When we desire to enjoy a boat ride and we are in the midst of a river or lake, rowing the boat, and we want a drink, it costs us twenty cents or more an hour, unless we carry the nut brown beverage with us, which is still more expensive. When we lay water mains, with wells or the water supply from mains near at hand, it costs 50 cents a day for a water boy. Where is the water free as air? The operation and mode of supply must be paid for by those who get the benefit, and the rates must be fixed accordingly. Let us compare our city, with a population of 17,884, supplying 73 per cent. of our inhabitants, with another city not a great distance from us, with a population (census 1895) of 28,769, supplying only 50 per cent. of its inhabitants, where they have no meter system and the water seemingly is as free as air. They have 2,908 takers, 574 more than we have, and four miles more of mains. Their annual pumpage was 1,627,852,100 gallons during the year; we pumped 290,972,750 gallons, only a slight difference of 1,336,879,350 gallons more than we pumped; their daily average was 4,459,870 gallons, against our 794,446 gallons; their per capita is 155 to our 45 gallons per day. They consumed 3,857 cords of pine slabs, at a cost of $5,586.54. We consumed 735 tons and 600 pounds of anthracite pea coal, at a cost of $2,933.85, a difference of $2,652.69, not considering the kind of fuel. They expended $32,000 in new pumps, and they are inadequate; we invested $38,000 in meters, of which we have already saved over 44 per cent. in their cost on the fuel, and will increase that saving from year to year. When fire pressure is demanded of us, the water is not oozing from a thousand and one openings, reducing our pressure, crippling our usefulness, and weakening us when demand is made upon us in case of a large conflagration. The free water people forget that they are standing in their own light and are paying for this free water indirectly, and might be so unfortunate as to suffer a great loss by fire through the want of fire pressure.

Meter Rates.—Another very difficult problem to solve is that of meter rates. We have made the rates a study for years. With the best intentions, we are bound to do injustice to some; therefore, our endeavors should be in the direction of the least possible injustice. The three most difficult, and at times very expensive, parts to be considered are the source of supply, filtration and the fuel. Our water supply is from artesian wells; therefore filtration is not in our consideration, but the fuel bill plays an important part. Our pumping station being located in the residence portion, in the midst of a park, surrounded by costly dwellings, we are compelled to use hard coal. The average cost of our coal for the past ten years has been $3.25 per ton. Our annual operating expenses average between eleven and twelve thousand dollars. Therefore, with the above considerations in view, we fixed our meter rates. First, we established a minimum rate. Second, we decided that every taker, whether large or small, should pay for the first 5,000 cubic feet the same rate; after that a sliding scale for the benefit of the larger takers and in proportion to the use, viz.: If a party consumes 90,000 c. f. in six months, he pays for the first 5,000 c. f. $10; for 10,000 c. f., $15; for 20,000 c. f., $25; for 30,000 c. f., $30; for 40,000 c. f., $33; for 50,000 c. f., $36; for 60,000 c. f., $39; for 70,000 c. f., $41; for 80,000 c. f., $43; for 90,000 c. f., $45; all over 90,000 c. f., at 5 cents a 100 c. f. Having only one large factory that consumes a large amount of water, and our city being of a resident population, we cannot sell water less than 5 cents a 100 cubic feet at the present time. We sell by the cubic foot because it is indicated so on the meter; the takers can read the registration and govern themselves accordingly. Our rates are:

First 5,000 cubic feet or less, per six months, per hundred cubic feet, 20 cents.

Over 5,000 cubic feet and up to 20,000 cubic feet, per six months, add $10.00 for first 5,000 cubic feet and 10 cents for each additional 100 cubic feet.

Over 20,000 cubic feet and up to 30,000 cubic feet, per six months, add $25.00 for first 20,000 cubic feet and 5 cents for each additional 100 cubic feet.

Over 30,000 cubic feet and up to 60,000 cubic feet, per six months, add $30.00 for first 30,000 cubic feet and 3 cents for each additional 100 cubic feet.

Over 60,000 cubic feet and up to 90,000 cubic feet, per six months, add $39.00 for first 60,000 cubic feet and 2 cents for each additional 100 cubic feet.

Over 90,000 cubic feet, per six months, per 100 cubic feet, 5 cents.

Minimum per six months, $2.25.

The method of figuring under these rates is very simple, as examples will show, to wit: A patron having consumed during six months 7,316 c. f., deduct the first 5,000 c. f., which cost $10.00, multiply 2,316 c. f. by 10 cents, $2.32, add the $10.00, and the bill is $12.32. If he consumed 16,789 c. f., deduct 5,000 c. f., multiply 11,789 by 10 cents, $11.79, add $10.00 = $21.79. If 26,382 c. f., deduct 20,000, which leaves 6,382 c. f. at 5 cents a 100 c. f., $3.19, add $25.00, and the bill is $28.19. If 50,110 c. f., deduct 30,000 c. f., multiply by 3 cents, $6.03, add $30.00 = $36.03. If 78,999 c. f., deduct 60,000 c. f., leaves 18,999 c. f. at 2 cents a 100 c. f., $3.80, add $39.00 = $42.80. You will note that by this method every cubic foot is considered, and the assistance given to the larger taker according to his business and demands.

We adopted these rates two years ago, and they have been very satisfactory and met with general approval. There is the least discrimination, and no encouragement to waste water to get a lesser rate. Our experience has taught us the idea that there ought not to be a flat rate. Each taker, whether large or small, to pay the same rate would be a gross discrimination against the larger taker, and result in a deficit in the exchequer, and, necessarily, higher rates; whereas with a sliding scale, all are treated as nearly as possible impartially. If there was only one price in the fuel, per ton of coal or cord of wood, that is to say, if we had to pay for 600-800-1,000 or more tons of coal or cords of wood to pump the water the same price that it costs us for our own private use, what would be the result? Who would pay the difference? Would not the taker? The small, as well as the large taker derives the benefit of the lesser cost in fuel. There must be a minimum rate, as it costs as much to take care of a small as it does of a large consumer. If we purchase a half ton of coal, the cartage is the same, and the labor nearly so, as if we had purchased two tons. It is so in all commercial lines; why should it be different in the sale of water?

I trust that I have added in a small way another solution of the great problem that baffles so many water works officials—that of securing an abundance of water at a lesser cost, lesser in the avoidance of the purchase of pumping machinery, lesser in the cost of filtering the supply, and better able to secure a pure and wholesome water from artesian wells in smaller cities. The meter is the detective, the guardian, the adjuster, the salvation of the

water supply and of the finances. A thorough trial of the meter by the water works officials and by the citizens will soon convince them that the only fair and just way to sell water is by meter measurement.

CAST-IRON PIPE INSPECTION.

BY T. W. YARDLEY, OF CHICAGO.

The importance of careful inspection of cast-iron pipe for water works has grown in the past decade so materially that few engineers and superintendents of water works are willing to accept pipe from the maker's standpoint of excellence. This is not to be wondered at, when we know the inspector in the employ of the company making the pipe has but one interest to subserve—that of his employer. If the maker of pipe would require from his inspector the same care that an outside inspector takes in the interest of the purchaser, there would be very little use for an outside inspector. There are many points for an inspector to watch carefully, and it is not surprising that an employe of the maker should overlook some of the most important ones. For instance, pipe made in cold weather should not be taken from the casting pit while showing the color of heat; if so, internal strains will exist if the shell is of uneven thickness, and to the detriment of the life of the pipe.

T. W. YARDLEY.

There is no metal so unreliable as cast iron when unfairly treated, but when fairly treated it is one of the most reliable. Many of the engineers and superintendents of water works throughout the New England states refuse to take any pipe from a day's cast that shows from ten to twenty per cent. rejections, for the reason that no one can tell how near the danger line the accepted pipe may be; while the accepted have passed all careful inspection it is not a sure thing that the accepted pipe will stand in case of a water ram that is liable to occur at a fire, when a valve may be closed suddenly. The force of the blow under these conditions will be of greater force than the hammer test when the pipe is filled with water, free of air and subjected to a pressure of 250 pounds per square inch.

Inspection of pipe is of no value to the buyers unless well done; it is simply money thrown away. Fifteen years ago there were very few inspectors sent to pipe works to look after the interest of the purchaser; during that time many mechanical devices have been introduced that have cheapened the cost of production and enabled the makers to increase their output; but these devices do not insure regularity in thickness of shell or perfect hubs, to say nothing of cold shuts and other imperfections caused by the iron being poured too cold. All of these points should be carefully watched by the inspector, and if he does his duty he will look after this, and it is for this that the purchaser pays for careful inspection. The cost of inspection is so reasonable that no water company should hesitate regarding the employment of competent inspection. The railroad companies, as a general proposition, have all the rails and splice bars purchased inspected. After years of such experience these large interests have almost unanimously united on the value and importance of good inspection. This is so with water works companies, but more important to the latter for the reason that pipe are underground, and, therefore, cannot be looked after so well as the rails and appliances above ground. As pipe lines are extended the pressure is often increased, and therefore the more important that pipe should be of uniform thickness of shell and free from imperfections due to careless cooling, etc. In many towns direct pressure from the pumps is secured, often running the pressure up to one or two hundred pounds pressure per square inch.

At the time of the fire at Jackson Park, during the Columbian Exposition, there were often sudden calls for a large amount of water, and the pressure was increased from seventy-five to one hundred and fifty pounds per square inch. There was laid in the Exposition grounds at Jackson Park some thirty-five miles of water mains. These were laid under the personal supervision of William S. McHarg, hydraulic engineer, who had entire charge of the water pipe distribution; these pipe were inspected under the direction of Robert W. Hunt & Co., at the foundries where the pipe were cast. After the pipe was laid test pressure was applied of 100 pounds per square inch. All the Exposition buildings were amply provided with this protection, and to make it effective a pressure of 75 pounds per square inch was carried constantly on the mains. There were 96 fire alarms during the time of the Exposition from May 1 to October 31, 1893, and no fire engine did any service on buildings where the protection existed. As soon as an alarm was struck the water pressure was run up to 100 or 150 pounds; this was a positive order which was regularly and imperatively carried out. The most severe trial of any pipe in the system was given the 24-inch main supplying the electric fountain. This water was pumped directly into the mains, and the service required that any or all jets were to be thrown on or off instantaneously; the pressure carried was between 80 and 90 pounds, running up to 150 pounds at the pumps on the sudden shut off. The severity of the test can be appreciated by one who comprehends the impact imparted by such a blow through such a non-elastic agent as water. I make this presentation of facts to emphasize more fully the value of good inspection.

CLEANING RESERVOIRS.

BY DOW R. GWINN,
SUPERINTENDENT WATER WORKS, QUINCY, ILL.

Cleaning a reservoir is not the kind of a job that one is anxious to do, but when the necessity exists, the sooner it is done the better. If the reservoir has a hard, smooth bottom, with sufficient fall to the waste pipe to carry off the mud and water rapidly, the task is not a difficult one. The writer has had experience in cleaning two reservoirs; one is used for settling purposes in connection with a filter plant, and is 70 feet by 70 feet, 7 feet 6 inches to 9 feet 6 inches deep, with a fall of 2 feet from the point most distant to the waste pipe. After using for several months, it is necessary to wash out the sediment, which at the point of inlet is usually about 4 feet 6 inches deep, the balance being covered to a depth of from 12 feet to 7 feet. After the reservoir has been drained, pumping is resumed, the filters being supplied direct from the pump, and the surplus water used for washing the mud. With nine men the sediment is removed in about three hours. The other reservoir is used for storing filtered water, and is 246 feet

DOW R. GWINN.

by 343 feet at the bottom, 25 feet deep. The bottom is of clay puddle, nearly level, except within a radius of 30 feet of the waste pipe, where the fall is about 18 feet in that distance. The inlet has been changed, but at the time of the cleaning it was in the southwest corner, while the opening into the waste pipe is in the northwest corner, or directly opposite the inlet. There is only one hydrant accessible, and to get sufficient pressure for effective washing streams it would have been necessary to run the pressure to about 175 pounds, possibly higher in the lower districts.

It was finally decided to wash the mud with water pumped into the reservoir at the inlet and have plenty of laborers to stir the mud in the stream of water as it flowed to the waste pipe. While the reservoir was empty the city was supplied by direct pressure; the inlet valve is 20 feet in diameter, requires 196 turns to open, and while cleaning was being done, it was open twelve turns. To prevent any damage from suddenly increased pressure or water hammer, the hydrant near the reservoir was opened, to which was attached 150 feet of 2½ inch hose, laid to the top of the reservoir embankment. To move and stir the mud twenty laborers were employed, who were provided with wooden scrapers such as are used to scrape snow. We tried several sizes, and found that the men did the best work with the board or blade 8 feet by 1 foot 6 inches, the handle being 1½ by 1½ inches. In cleaning a reservoir in this manner it is of the utmost importance to wash that portion of the reservoir first which is not on the natural route for the water from the inlet to the waste valve. We began by making a channel in the mud about 8 feet wide, commencing at the inlet and running along the foot of the south bank, continuing along the east bank, thence along the north bank to the waste pipe in the northwest corner; the mud from this channel or trench made a kind of embankment, which prevented the water from making short cuts to the waste pipe. Water was then admitted, and the men scraped the mud with the stream until the space covered by the water was free from mud. The clay puddle was distinct from the mud, and there was no difficulty in deciding where the mud left off and the puddle began. Once away from the bank it was necessary to confine the water where needed for washing. To do this we used 2 inch and 3 inch planks 1 foot wide and 20 feet long, placed on edge and end to end; near the end of each plank was nailed a triangular board, which held the plank on edge.

In preparing to clean a section two lines of these planks were used and they were placed parallel, about 8 feet apart; the upper end or inlet started at the open trench along the east bank and the lower end or outlet was near the waste pipe. The water was then admitted into this section, and the mud scraped along with it as it flowed to the waste pipe. When this space was cleaned the boards were moved south to the next section, and so on until the whole surface had been cleaned. The planks when in position were bedded into the mud and puddle with a maul, a few strokes being necessary on each plank. When the pressure on a particular plank was unusually heavy a stake or two was driven on the lower side. Iron clamps made of ½ inch iron, 6 feet wide, shaped like a letter "U," say 10 inches long, to go over the joints where the ends of the planks come together, would be of service in keeping the line exact; stakes would not be necessary if clamps were used. Considerable time could be saved by having sufficient boards to make three lines, so that one set of boards could be moved ahead, and as soon as one section was washed, another would be ready for the water to be admitted. As stated before, the average depth of the mud in our reservoir was 9 feet, and what has been written applies more particularly to that depth; but if the mud was much deeper it would not be necessary to have a row of planks on the side in the direction in which the work was moving, as the material itself would be a sufficient dam. We learned that it was desirable to keep the mud from drying, as it washed much easier when soft, and at night the waste pipe valve was closed and sufficient water admitted to flood the bottom. There were 2,000 cubic yards of mud removed, and the time required was eight days. The expense of removing the mud, including cost of planks, rubber boots, etc., but exclusive of water, was 15 cents per cubic yard. The amount paid for labor was about 10 cents per cubic yard.

FREE WATER FOR PRIVATE BATHS.

BY L. N. CASE, SUPERINTENDENT OF WATER WORKS, DETROIT, MICH.

As far back in my childhood as my memory will reach the word free was always a household word. I was early taught fully the meaning of liberty, the right of all created being to "life, liberty and the pursuit of happiness," the injustice and ignominy of slavery, and the inalienable right of all men to free speech and a free press.

On the rostrum exhibition days, as a boy, my declamations were selected for their patriotic character and their declarations for liberty and freedom. "Give me liberty or give me death," "The land of the free and the home of the brave," and "With freedom's soil beneath our feet and freedom's banner waving o'er us," were shouted out at the fullest extent of my youthful lungs. And on through years the word free, attached to anything, was a direct appeal to this early prejudice, and often beguiled me, even against my better judgment, to an advocacy of it.

L. N. CASE.

At the time, however, when the cry "free water" was flung out upon the breeze in my own city, appealing to the sentiment, the prejudices and the ignorance of the people, sufficiently so as to obtain a majority vote in its favor, I will confess "a change came o'er the spirit of my dreams." Naturally, now, as before to the contrary, I am inclined to look at the word "free" rather suspiciously. I am now inclined to reason thus: If anything is to be supplied free to "A" at the expense of "B," for, of course, everything that costs money has got to be paid for, I must know, before approving the idea, if the benefit accuring to "B" is commensurate with the burden of the extra expense imposed upon him.

I am in favor of free and compulsory preventions to contagious diseases, and am willing to pay my share of the expense in proportion to my income or possessions, because the death of myself or of some one near and dear to me may thereby be prevented.

I am willing to go still further. I am willing to supply free bread, free clothes, free everything that can be enumerated among the necessities of life, to all who may be in indigent circumstances, and unable to provide these things for themselves.

Upon these lines and to this extent I am willing to go, but any other proposition that will result in increasing the burdens of any one class without a recurrent proportionate advantage will certainly meet with my opposition.

Now as to this proposition to furnish free water for private baths.

I find that the expenditures for establishing and maintaining a water works are, to a great extent, derived from the people from assessments made on the basis of certain established rates; that almost invariably bath tubs are charged for at an average price of $2.00 each per annum, and that the income from such source is considered necessary.

Therefore, if the charge on bath tubs is abated, the amount formerly received therefrom must be derived from some other source, either by an increased charge on other fixtures or upon the family rate.

In Detroit there are 12,500 bath tubs which are in premises owned by people who are able, if not willing, to pay the small charge therefor, but which must be abated should "free baths" prevail.

The question as to how many of those now unprovided would be induced, by the abatement of the charge for water, to go to the expense of a bath tub, must of course be problematical. I cannot but think, however, that the percentage will be very small, and certainly not more proportionately than the inducement. It must be remembered that the purchase and proper connections for a tub will amount to $15.00 or more, and it does not seem reasonable to suppose that many would be influenced to go to this expense by the fact that they would not be obliged to pay $2.00 per annum for the water used therein.

Now, supposing an appropriation is made to furnish tubs for all premises, utterly ridiculous and impossible as it may seem, there would still be lacking another feature to its success, and that is the obligation to bathe.

The class most desirable to reach from a sanitary standpoint is not particularly fond of water as a lavation. The old saying that you can lead a horse to the water but cannot make him drink, is very applicable in this connection.

A friend of mine owns a cottage, next door to one occupied by himself, which is furnished with a bath tub. He says that, of his own knowledge, no member of the last four families used this tub during their entire occupancy.

This is but an illustration of conditions that I believe generally prevalent among the laboring classes, and is but the result of an habitual neglect from childhood of personal cleanliness, growing out, probably, of their environments and the lack of opportunity or inducement to care for the same.

It would seem necessary then, in order to make this proposition a success, to not only abate the charge for the water, but also to provide tubs, and in addition to enact an ordinance requiring each individual to bathe at regular stated intervals.

I most emphatically do not wish to be understood as opposing anything that is for the real benefit of the masses, their education or improvement. On the contrary, I am of the opinion that there is far too much neglect among the intelligent and wealthier classes of their less fortunate fellow-men.

There is, in my opinion, a grave responsibility resting upon those endowed with brains and money to take careful thought of the conditions of those less favored, and to direct and control the influences that will tend to improve those conditions.

If we are anxious to do them good, to elevate them mentally or physically, let us devote our energies and means on the lines of practical common sense.

I am aware that this proposition will be sustained by the argument that the expense can be imposed upon the property, on the ground that the possessors thereof will derive a benefit from the improved sanitary conditions. This might be partially true if its establishment should produce the result contemplated: that is, the establishment of bath tubs in the apartments of the working people.

I am satisfied, however, that this would not be the result, because, in the first place, of the expense of the tub and its attachment, and, in the second place, on account of the absence, generally, of the desire to avail themselves of the privilege so provided.

This, to me, is an entirely different question to the establisment of public baths. In the latter case, the tub, the water and all the appurtenances are provided. One thing only is lacking, and that is the inclination, and this would be fostered and often created by the very novelty of the enterprise.

No, gentlemen; in place of trying to "eclipse the free public baths of Europe" by instituting free water for private baths in America, let us rather advocate some great national scheme by which the laboring classes of this country may obtain sufficient work to enable them to provide, first, food and clothing for the body.

COMPENSATING RESERVOIRS FOR GRAVITY WATER SUPPLIES IN LIEU OF COMPENSATION FOR RIPARIAN RIGHTS AND ITS LEGAL ASPECTS.

By Stephen E. Babcock,
City Engineer, Little Falls, N. Y.

The old proposition that every riparian owner, or dweller along a stream, has a common law right to have a stream and all of it continue to flow along past his premises forever, has been the *bete noire* of many a promising gravity water works project.

STEPHEN E. BABCOCK.

The dread of heavy damages, based upon this theory, has caused numerous municipalities and private water companies to abandon all thoughts of many meritorious gravity water schemes and resort to the more expensive pumping plants, procuring a water supply from a far inferior source. I am aware that the subject matter of my paper has only a limited application to mountainous districts, yet as our association is cosmopolitan in its aims, I trust I may be pardoned for the selection of my subject, hoping it may prove interesting to those situated where a gravity supply and compensating reservoirs are possible and practical.

The proposition that the riparian owner has a common law right to have a stream and all of it continue to flow past his premises forever, would seem to imply a property interest in the water itself. No less a high tribunal than the Court of Appeals of the State of New York, the court of last resort in the State, in the case of Sweet vs. City of Syracuse, in an opinion by O'Brien, Judge, says that there is no property *per se* in water, only the use thereof. He says, "It is a principle recognized in the jurisprudence of every civilized people from the earliest times that *no absolute property* can be *acquired* in flowing water. Like air, light or the heat of the sun, it has none of the attributes commonly ascribed to property, and is not the subject of exclusive dominion or control. As Blackstone observes: *Water is a movable, wandering thing, and must of necessity continue common by the law of nature, so that I can have only a temporary, transient usufructuary property therein.* While the right to its use as it flows along in a body may become a property right,

yet the water itself, the corpus of the stream, never becomes, or in the nature of things can become the subject of fixed appropriation or exclusive dominion in the sense that property in the water itself can be acquired or become the subject of transmission from one to another. Neither sovereign nor subject can acquire anything more than a mere usufructuary right therein."

In Angell on Water Courses, I find the following:

Section 94. "By all the modern as well as by all the ancient authorities, the right of property in water is usufructuary and consists not so much in the fluid itself as of the advantage of its momentum or impetus; and the grant by the Legislature of a State of the water power of a navigable stream, does not pass to the grantee the title to the corpus of the water or prevent its use by others. The owner of the land merely transmits the water over the surface; he receives as much from his higher neighbor as he sends down to his neighbor below; he is neither better nor worse; the level of the water remains the same."

Angell then quotes a case that has been the foundation stone or bulwark of many of the adverse decisions against water works in condemnation cases, as follows:

Section 95. "In a case in this country of much more than ordinary importance and one universally and frequently appealed to as high authority, the general doctrine in relation to the right to apply the water of a water course is thus laid down by Mr. Justice Story. 'Prima facie, every proprietor on each bank of a river is entitled to the land covered with water to the middle of the stream. In virtue of this ownership he has a right to the use of the water flowing over it, in its natural current, *without diminution or obstruction.* But strictly speaking *he has no property in the water itself*, but a simple use of it, while it passes along.' This decision is probably based upon the Lord Ellenborough (English) opinion in the Bealy & Shaw case, viz.: 'Every man is entitled to a stream of water flowing through his land without diminution or alteration.'"

These decisions have been used in many cases since, to support the proposition that storm waters or the waste product of water passing along in times of freshet, has also a property value to the riparian owner, and must be accounted for to the owner of the land, as well as the ordinary flow which his machinery is adapted to use.

If this proposition in its entirety was true and held to cover all water passing along a stream, then a stranger would not be able to water his horse in a stream without being liable for damages to the riparian owner therefor; or, again, the riparian owners at Niagara Falls could successfully maintain an action against the city of Buffalo for the diversion of its water supply, or any city or riparian owner on Lake Erie or the chain of lakes through to Chicago could maintain an action against the city of Chicago for the prospective diversion of the lake water through the drainage canal when it becomes an established fact of diversion. The common sense, and probably the common law that was intended to be laid down, was that a man was entitled to the use of a stream of water in such manner that there should be no injury or damage to him or to them above or below him, and not the stream in its entirety or absolutely and which carries with it ownership of the water. If water was diverted and yet no damage was done him, there might be no cause of action, or, in its worst phase, if an action would lie, then the damage would be nominal and "not worth the candle," and this is the essential principle I am endeavoring to bring out in this paper.

To return again to the common law right, so called, the pertinent inquiry is, what is common law? Is it not the proper definition of common law, that it is a series of self-evident, logical propositions, or axioms, which need nothing more than common sense to prove their correctness? And, if this is so, is it not also true, that what in the old English, feudal times might have been good common sense, as law, at this day would and does not have the same force and value, due to the advancement of the mechanical, sanitary and other allied sciences, and the advanced environments of mankind generally? The force of gravity, as applied by nature to the passage of water from the clouds to the sea, in those days was only a natural phenomena, possessing little or no market or tangible value, except, perhaps, the fancy of having the water run as it always has from time immemorial, and is not this the basis of the old common law theory that a riparian owner has a right to the use of the water flowing past him in its natural current without diminution or obstruction?

In these old propositions no account is taken of the relative volumes of water passing at different times of the year. We have in hydraulic engineering a condition of streams known as the average flow, storm flow, ordinary or normal flow, and minimum flow. The average flow may be defined as the entire flow for the year, and is the entire flow for the year divided by the number of minutes or seconds in the year, as if the flow was controlled and remained an entirely uniform flow, day and night, for the year. The storm flow is the freshet, or excess flow, that passes off in the spring or fall, when the snow melts or the fall rains occur, or may also occur during other portions of the year, and which, as ordinarily no riparian owner is provided with facilities to store and conserve, is purely a waste product of nature. The ordinary, or normal flow, is the flow which can be depended upon for eight to nine months in the year. A riparian owner, in adapting his machinery to a stream, would expect to be able to run it for eight or nine months in the year, without any difficulty from low water. While the minimum flow is the light, summer flow, which occurs when the water retained in the soil in the spring has about all run off or out and vegetation picks up practically all the summer rains that come, or it may perhaps be properly termed, the tailings of the stream. A riparian owner, therefore, proportions his machinery so that during the eight or nine months he will have a steady supply of water, as well as also a large surplus or waste, while during the three summer months he would expect a short supply of water.

Is it not a fair proposition, or common sense, that as a riparian owner has no property interest in water *per se* and, as storm water is a waste product which he is not able to conserve, but must let run past his property, that it possesses no value to him, and as it possesses no value to him if some other party spends large sums of money to conserve it, that it does possess a value as stored water to the other fellow, and so long as the party storing or conserving this waste product allows the ordinary and minimum flow to pass down the stream, the riparian owner can have no claim for damages on account of this storm or waste water saved or conserved, and therefore the party who has saved and conserved this waste product may divert or do what he pleases with it, if he does no damage to the riparian owner. This seems to be the view taken by the English parliament.

Humber, in his English work on water works engineering, says: "Mills are never designed to utilize the whole of the water flowing down a stream, by far the larger portion runs to waste, partly in times of excessive rain and partly when the mills are not at work."

Again: "It is ordinarily found that mills are capable of using only from one-fourth to one-third, and one or the other of these proportions, mostly the latter, is generally assigned as the quantity to be passed uniformly and constantly down the stream as compensation."

Turner & Brightman, in their English work, "Water Works Engineering," 1893, say: "But, as a matter of customary practice, it may be observed that the amount of compensation water allotted to a stream, of which the entire catchment area is requisitioned to supply the impounding reservoir, has been frequently fixed at one-third of the average yield of the gathering ground in question."

"The compensation water delivered by the Liverpool water works to the River Vyrnwy, amounting to 4,930 millions gallons per annum, is only one-fourth of the available yield of the catchment area. The industrial interests affected by diminution of the normal flow of that river are comparatively unimportant, etc. This contrasts strongly with the onerous conditions imposed upon Liverpool in 1847, when one-half of the available yield of the Rivington catchment area was required to be delivered as compensation. Subsequently, however, in 1868, it was reduced by purchase to the present quantity of about one-third of the available yield. The early experience of Manchester was somewhat similar to this. By an act of Parliament in 1848 the corporation was obliged to deliver two-fifths of the available yield of their Longendale watershed as compensation to the River Etherow; but in 1854 an act was obtained enabling this quantity to be reduced by purchase to about one-third of the yield. In 1879 the Manchester corporation obtained parliamentary powers to construct the Thirlmere water works, the compensation water required being about one-tenth of the available annual yield."

"The portion of the flow of an ordinary stream available for useful purposes, without artificial storage was, however, formerly much overestimated, and modern practice in this country (England), authorized by recent legislation, distinctly recognizes that fact."

Humber also says: "If the water of a stream is taken, a quantity equal to that used by the mill owners must be returned to it, or compensation be made either in money, for the substitution of steam machinery, or by water. When, however, the water can be intercepted at the stream head before it issues to the surface and flows in a visible and determined channel, no compensation can be claimed by mill owners on the stream below, for it is not capable of actual proof that any water so intercepted would have flowed into the stream in question. This view is supported by the decision of Judges Martin, Crompton, Bromwell and Watson, delivered to the House of Lords in the case of Chasemor vs. Richards."

It will thus be seen that in England, from whence came our common law, that the English parliament recognizes and adopts the proposition heretofore embodied that the riparian owner is only entitled to the ordinary or normal and minimum flow.

The proposition of one-third to the riparian owner, and the balance for water works or other purposes, in England, seems to be based upon a series of gaugings of various streams. I find in Beardmore's Hydraulics the following article on the division of flood-waters from ordinary discharge:

DIVISION OF FLOOD WATERS FROM ORDINARY DISCHARGE.

"It is frequently a problem to ascertain by gauging the average flow of a stream during a part of the year, exclusive of flood-waters; it being difficult to assign any fixed time when a stream is and when it is not in a proper state for gauging, as it would require a knowledge of the very fact which it is wished to ascertain; moreover, persons must be found frequently to gauge for many months together, without discretion as to what should be excluded, and sometimes stated intervals are named in an act of parliament Mr. Leslie therefore proposes the following method:

"*First.*—The gaugings are all to be set down in a table, in the *order of their quantities*—the whole number of observations is to be divided into four equal parts, whereof the lowest fourth will be held to be *extreme droughts;* and the highest fourth, *floods;* the average of the middle half is to be ascertained, and all above that quantity of the original table is held to be flood-water.

"A new table is then to be constructed, in which all the gaugings not exceeding the average of the middle half are put down at their actual quantity; but all that are above the average are put down as equal to that average quantity; the mean of the whole of the new table is to be considered as a fair average of the water flowing in the stream, exclusive of floods. Mr. Leslie gives a table of a stream thus treated, which varied in its run from 1,902 to 59,861 cubic feet per minute. Average of the whole was 10,231 cubic feet per minute; the average of the middle half was 7,234 cubic feet per minute; and the average quantity, exclusive of floods, was 5,830 cubic feet per minute.

"Mr. Leslie also suggests that his plan might be used by dividing the gaugings into only three equal parts, which gives a rather smaller result, but makes no important difference; the above stream treated in this manner gives the average of the middle third 7,085 cubic feet per minute; and the quantity, exclusive of flood-water, 5,758 cubic feet per minute. An example is also given of a small stream varying from .27 to 272.4 cubic feet per minute.

	Cubic feet per minute.
"The entire average was	35.50
Average of middle half	18.51
" " third	17.90
Final average, excluding floods by middle half plan	13.65
Final average, excluding floods by middle third plan	13.40"

It will be seen from the Leslie gaugings that in large streams the ordinary or normal flow is about one-half that of the average for the year, while the minimum flow is one-fifth that of the average for the year, and the storm flow runs up to six times the average for the year. While in case of a small stream the ordinary or normal flow is about one-third that of the average for the year, the minimum being about one-tenth, and the greatest maximum flood flow twenty times that of ordinary or normal flow. It is apparent that parliament has used this and similar data upon which to base their legal enactments. In England the power of parliament is said to be omnipotent and the concurrent act of the three estates of the realm is final and conclusive. It is different from this in the United States, which are governed by a written constitution, and where the fifth article of the constitution lays down the clause, "Private property shall not be taken for public use without just compensation." Yet, as both the Court of Appeals of the State of New York and Justice Story lay down the proposition that no riparian owner has any property right in water itself, but only the use thereof, so long as a riparian owner enjoys all the use that he can make of the water, the diversion of any surplus or storm water can work him no damage and then, even if he has a legal right of action, if he can show no damage, only a nominal award can be expected to be made him.

This is the theory upon which the city of Little Falls has proceeded the past year in securing an additional supply of water, and, so far as the matter has proceeded, successfully. The city of Little Falls takes its water nine miles away, from a stream known as Beaver Brook, which is a tributary of Spruce Creek; Spruce Creek is again a tributary of East Canada Creek, upon whose banks at Dolgeville the extensive enterprises of Alfred Dolge & Co., and the large Canada Creek electric power plant is

situated, while upon Spruce Creek below the point of diversion some four or five small country saw and grist mill powers are located. The relative elevations of Spruce and Beaver creeks are such that by going about one mile up Spruce from Beaver, Spruce Creek may be diverted into the conduit from Beaver Creek to the city of Little Falls. Beaver Creek has a small drainage area, and the stream is good for three to four million gallons per day for nine months, and perhaps one and a quarter to one and a half million gallons in the dry season.

The city of Little Falls is a large manufacturing town and desires a sure supply of say four million gallons per diem.

Spruce Creek above the point of diversion has a drainage area of forty-five square miles, while the whole of East Canada Creek has a drainage area of 285 square miles. Mr. Alfred Dolge owned a large storage reservoir on Spruce Creek at the point of diversion, which pond was three miles long and an average width of perhaps 500 feet and 17 feet depth of dam; he also owned three other sites for storage reservoirs, known as Lot 101, Crosby fly and Leipsic pond. When the city first broached the subject of an additional supply from Spruce Creek Mr. Dolge wanted $200,000 for the diversion. Upon inquiry, it was found that his large three mile pond flowed back over other riparian owners, and that he only held the right to flow their lands by paying annually for the privilege, and that on one of the riparian owner's lands there was an overflow channel running around his pond which he had dammed off without any legal right so to do, and that if the dam was removed from the overflow channel, his pond would be lowered so much as to materially affect its value. It was also ascertained that upon the head waters of Spruce Creek another riparian owner was possessed of a site of an old lake, or fly, easily dammed, which would store a very large amount of water, some seven hundred and fifty million gallons.

Rather than pay the $200,000, the city of Little Falls, by its officers, bought up the lands of all the riparian owners on the Dolge three-mile pond, including those who had received yearly compensation for flooding and the lands of the one who owned the overflow channel, as also the site of the possible large storage reservoir at the head waters. Then, having a conference with Mr. Dolge and his attorneys, it was shown to him that his large storage reservoir was now almost valueless to him, and that the city had also by purchase secured the site to store large amounts of storm water and presented the proposition to him to pay him $5,000 for his three-mile pond, with the fee to the site on Lot 101 and the right to flow Crosby fly and Leipsic pond, and agreeing to always allow the ordinary or normal and minimum flow to run down the stream, but reserving to the city of Little Falls the right to take so much of the storm water as their needs might require, and in case the city should judge that in any year they did not need the stored storm water, to allow it to flow down Spruce Creek as would best serve his needs. Upon a full discussion of the matter by his attorneys, they conceded that as long as the city caused the ordinary or normal, hence useful flow, to pass down to his mills, that while he might perhaps have a cause for action, yet as he would then be unable to show any damage, his recovery, if any, would be nominal. Whereupon the city's proposition was accepted by Mr. Dolge, and the property deeded to the city for the compensation named, $5,000, and with the conditions in deed as to diversion and flow of water as follows:

"*Fourth.*—The parties of the first part do also grant quit-claim and release, but without warranty, to party of the second part, the right and privilege to divert the waters of Spruce Creek at any point in said creek, or the branches thereof, above the westerly line of the so-called 'mill lot,' to the extent which the said water may be required or used as a public supply of water to the city of Little Falls and its inhabitants and for that purpose only.'

"*Third.*—This conveyance and grant is made with and subject to the following restrictions, reservations, covenants and conditions: First. Party of the second part covenants and agrees with the parties of the first part, as part of the consideration for this conveyance, that it will at all times maintain the normal and natural flow of water (exclusive of storm water) in Spruce Creek below the point where party of the second part shall take water therefrom for the purposes aforesaid, it being the intention of the parties hereto that party of the second part shall replace and return to the channel of said stream below the point of such taking, an amount of water from the waters stored above that point on said Spruce Creek and its tributaries at least equal to the amount diverted by it for the purpose of affording such public supply of water to the city of Little Falls and its inhabitants."

The small riparian owners on Spruce Creek are unsettled with, with one exception, and that one owned the largest and most valuable pond, and he deeded the right of diversion, with a similar clause as in the Dolge deed, for nothing. These other small owners have procured a temporary injunction to restrain any diversion, and, while they are anxious to settle, I fancy it would be a good thing for water works people in general if the matter was fought to the finish on the lines outlined in my paper. It seems to me, a proper logical interpretation of the common law will settle it, that there is no damage from a diversion of the surplus or storm water, so long as the ordinary or normal and minimum flow is caused or allowed always to run.

INVITATION TO CITY OFFICIALS.

To Mayors, Aldermen, Councilmen and City Officials:

The Executive Committee of the League of American Municipalities take this means of extending to you a cordial invitation to attend and participate in the deliberations of the second annual convention of the League, to be held at Detroit, Mich., August 1 to 4 inclusive. It is our desire to have every progressive municipality in the United States and Canada represented at this convention, which promises to be the most important gathering of city officials ever held in the world. Your presence will enable you to exchange ideas and experiences with those holding positions similar to yours in other cities, and will afford you an opportunity to witness all the latest and best appliances and materials used in municipal work. This convention will be composed of practical men, those who have had actual experience in municipal work and understand conditions that must be met in the solution of the various problems involved in the administration of civic affairs. An interchange of experiences, ideas and knowledge between such men must necessarily redound to the benefit of their constituencies. We recognize the impossibility of reaching every city official in the United States and Canada with a special invitation, and have, therefore, decided to extend this general invitation to our brother officials throughout the land. We would be glad to have your acceptance addressed to the secretary, Mr. B. F. Gilkison, Downing Building, New York City. Yours cordially,

John MacVicar, Mayor, Des Moines.
C. A. Collier, Mayor, Atlanta, Ga.
S. L. Black, Mayor, Columbus, O.
John Warner, Mayor, Peoria, Ill.
C. M. Leitch, Council, Wilmington, Del.
F. A. Walker, Council, Trenton, N. J.

CITY OFFICIALS TO MEET AT DETROIT.

The Second Annual Convention of the League of American Municipalities in August.

Large Delegations from all Sections of the Country Will Be in Attendance.

During the first four days of August the city of Detroit will entertain from one to three thousand mayors, councilmen and city officials, who will journey thither for the purpose of discussing the numerous and complex problems involved in the management of municipal business. The occasion will be the second annual convention of the League of American Municipalities, which is composed of a large number of the most progressive cities and towns in the United States and Canada. This league was organized last September at Columbus, Ohio, where 418 mayors and councilmen from 101 cities and 23 states got together for the purpose of devising some way to advance the interests of good government. Good government, in this sense, means an intelligent, economical and progressive transaction of the business of a municipality. It does not mean experimenting with theoretical forms nor the copying of European methods. The officials who gathered at Columbus, being ripe with experience, recognized that municipal government in this country was in a state of evolution, that its advancement from the crude to the perfect state was progressing slowly but surely, and that the best way to expedite this advancement was to educate the powers that govern. A perpetual, effective system of education for those who rule the destinies of our cities was the thing needful for a better administration of civic affairs, according to the ideas of the delegates at Columbus. As doctors of law, physics and divinity form reform clubs and civic federations for the purpose of setting up ideal municipal governments on theoretical foundations, the city officials concluded to go them one better by organizing themselves into a national body for the purpose of studying the practice of municipal government and in that way accomplish the best possible, if not the ideal, results. To study the correct as well as the mistaken methods of carrying on municipal work, and thereby profit by the experience of one another, is the educational work for which the League of American Municipalities was organized. Its purpose is to inform its members where and how mistakes have been made by city officials and where and how this or that department of the municipal service has been improved.

The first article of the constitution of the league sets forth its objects clearly:

> The objects of this organization shall be the general improvement and facilitation of every branch of municipal administration by the following means: First, the perpetuation of the organization as an agency for the co-operation of American cities in the practical study of all questions pertaining to municipal administration. Second, the holding of annual conventions for the discussion of contemporaneous municipal affairs. Third, the establishment and maintenance of a central bureau of information for the collection, compilation and dissemination of statistics, reports and all kinds of information relative to municipal government.

To insure permanency of organization the memberships in the league are held by the cities, which pay an annual fee of from $20 to $60, according to population. The mayor, all the members of the council and all the heads of departments of a membership city are entitled to all the privileges of membership. Each city belonging to the league is entitled to send its mayor and as many members of its council as it chooses as delegates to the annual convention, where every delegate may participate in all the discussions; but each city represented is entitled to but one vote on roll calls. Therefore New York, with a possible representation of a hundred delegates, will be able to make more noise on the convention floor, but will have no more voting strength in the league than Fargo, N. D., with two or three delegates.

That the coming convention at Detroit will be an immense success is already assured. A sufficient number of cities have already decided to send delegations to insure an attendance of upwards of a thousand officials. The topics on the convention programme for general discussion are:

> Municipal Ownership of Public Service Industries - What progress has been made in this line in the United States and Canada and with what results? What should be its limitations?
>
> Remuneration to Cities for Franchise Rights In, Over and Under Public Streets and Alleys—What remuneration, if any, should be exacted from light, water, street railway, telephone and subway corporations, and how should it be collected?
>
> The Civil Service—What results have been attained by requiring applicants for positions in city departments to pass an examination and making their tenure of office dependent on good behavior and mental and physical ability? To what departments should civil service laws apply?
>
> Garbage Disposal—What has been the experience of municipalities in attempting to collect and dispose of garbage in a sanitary and economical manner? Are the present utilization and incineration inventions satisfactory and what does it cost to operate them?
>
> Public Water Supplies—What means should a municipality employ to supply its people with an ample supply of pure water at equitable rates? Is the general use of meters desirable? What systems of filtration are satisfactory?
>
> Boards, Single-Headed Commissions or Council Committees—Should the administrative affairs of the departments of public works, water, fire, police, parks, charities and correction be conducted by boards, single-headed commissions or council committees?
>
> Street Paving—What are the relative merits and cost of the various paving materials?
>
> Regulation of Saloons—What policy is best to use in enforcing the laws pertaining to saloons?

A discussion of these interesting questions by city officials of varying experience ought to bring to light much useful knowledge and many valuable ideas. Among the speakers expected are Randolph Guggenheimer, president of the council of New York city; John T. Oakley, the bright Tammany leader on the floor of the New York council; Edward M. Grout, the president of the borough of Brooklyn; Josiah Quincy, Boston's progressive mayor; James K. McGuire, the young and brilliant orator and mayor of Syracuse; James D. Phelan, now called San Francisco's best mayor; Carter H. Harrison, Chicago's pride; Charles A. Collier, the eloquent mayor of Atlanta; Robert E. McKisson, mayor of Cleveland and senatorial opponent of Mark Hanna; John M. Harlan, leader of the republican minority in the Chicago council; David S. Rose, the new mayor of Milwaukee; Mayor Diehl, of Buffalo; Mayor Van Alstyne, of Albany; Mayor Jones, of Kansas City; Mayor Pratt, of Minneapolis; Mayor McMurray, of Denver; Mayor Hoos, of Jersey City; Mayor Warwick, of Philadelphia; Mayor Saltsman, of Erie; Mayor Dudley, of Nashville; Mayor Ashley, of New Bedford; Councilman Lavery, of Poughkeepsie, N. Y.; Mayor Jones, of Toledo, O.; Mayor Connors, of Holyoke, Mass.; Mayor Weaver, of Louisville; Mayor Farnsworth, of New Haven; Alderman Olmstead, of Des Moines; Councilman Kohnke, of New Orleans; Mayor Pierce, of Marshalltown, Iowa; Mayor Johnson, of Fargo, N. D.; Mayor Young, of Akron, O.; Mayor Ross, of Terre Haute, Ind.; Mayor Evans, of Birmingham, Ala.; Mayor Price, of Macon, Ga.; Mayor Truelson, of Duluth, Minn., and Alderman Rand, of Minneapolis.

There will be many other speakers besides those named above, and a good number of them will come from the smaller cities. A feature of the programme will doubtless be the address of Governor Hazen S. Pingree, of Michigan, who knows a thing or two about municipal matters which he stamped upon his record as mayor of Detroit.

At Detroit elaborate arrangements have been made for the reception and entertainment of the delegates and visitors. A number of local committees, composed of Detroit's leading citizens, are at work on plans calculated to give every visitor a thoroughly enjoyable time. The flower beds in the parks were arranged at the beginning of the season to be appropriate for this particular convention, and the visiting mayors and aldermen will find their welcome to Detroit expressed in radiant floral letters on the landscape.

MANY LARGE DELEGATIONS.

A number of cities have already signified their intention to send large delegations to the Detroit convention. At the Columbus meeting last year the large delegations were from Detroit, Mich.; Wilmington, Del.; Peoria, Joliet and East St. Louis, Ill.; Atlantic City, N. J.; Atlanta, Ga.; Minneapolis, Minn.; Erie, Pa.; Evansville, Ind.; Cleveland, Dayton, Toledo and other Ohio cities. All of these cities will most likely send as large or larger delegations than they did last year. In fact, the secretary of the league has already received advices which promise the attendance of a great number of very large delegations. The delegation from Greater New York will be more than fifty strong; Atlantic City has decided to send the whole council with the mayor; Birmingham, Ala., and Atlanta, Ga., will show up with big delegations; Buffalo, Syracuse, Poughkeepsie, Albany and other New York cities are arranging for large parties; New Haven, Conn., and Holyoke, Mass., will be strongly represented; Mayor Black, of Columbus, will probably have his whole council with him, and President MacVicar will have a number of the Des Moines aldermen in his party. It will be a great gathering.

REDUCED RAILROAD RATES.

From any point within the territory of the Michigan Passenger Association a special rate of one fare for the round trip has been made. This association includes the Grand Trunk Railway, the Lake Shore and Michigan Southern, the Michigan Central, the Grand Rapids and Indiana, the Flint and Pere Marquette, the Detroit and Mackinac, the Manistee and North Eastern, the Pontiac, Oxford and Northern, the Saginaw, Tuscola and Huron and the Ann Arbor railroads.

From all points in other parts of the country a special rate of one fare and a third for the round trip will prevail. All the traffic associations in the East, West and South have already decided to grant this rate, and tickets may be secured at any railroad station in the United States. This rate of a fare and a third will be given on the certificate plan. All those who desire to avail themselves will be required to state to the ticket agent that they are going to attend the convention of the League of American Municipalities at Detroit, August 1 to 4, pay full fare for the going passage and request a certificate entitling them to a third fare on the return trip. The certificates must be handed to Secretary Gilkison, of the League, at his headquarters at the Hotel Cadillac, Detroit, to be signed by him and vised by the agent of the traffic associations. Reduced fare tickets on the certificate plan will be on sale at all railroad stations on and after July 28.

OFFICIAL REPRESENTATION.

As to representation in the conventions of the League the constitution says:

"Each and every municipality holding membership shall be entitled to send its mayor and as many members of its general council and its board of aldermen as it may desire as delegates to the annual meeting. On the questions of electing officers and selecting place of annual meetings, each and every member shall be entitled to one vote, which shall be the majority expression of the member's delegation; on all other questions the vote of the majority of delegates present shall control. All delegates shall be entitled to participate in the discussions and debates of the meetings."

Only mayors, aldermen and councilmen of membership cities are entitled to participate in the work of the convention, but all other city officials, especially heads of departments, are cordially invited to attend. Every courtesy will be extended to this class of visitors, who will find much to interest them in the sessions of the convention and in the exhibition of municipal appliances and supplies.

Mayors, councilmen, aldermen and other officials of municipalities which are not members of the League, will be welcomed, as the officials of the League are confident that they will cause their cities to become members upon observing the good work of the convention. Good seats in the convention hall will be reserved for non-members who are city officials.

HOTEL ACCOMMODATIONS AND RATES.

Detroit is fortunate in the possession of a large number of hotels, some of which are among the best in the country. The leading hotels of the city announce the following rates for convention delegates:

Hotel Cadillac, $3 a day.
The Russell, $3 a day.
The Wayne, $2.50 a day.
The Griswold, $2 a day.
The Normandie, $2 a day.

ANTE-CONVENTION ITEMS.

Mayor Evans, of Birmingham, Ala., writes that he will be at Detroit with a good-sized delegation from his council.

The two branches of the municipal assembly of New York city will be represented by large delegations. The New Yorkers will doubtless go down to Detroit in fine style, and they will form an interesting party.

Mayor Johnson, of Fargo, N. D., who was so popular at the Columbus convention, writes that he will be at Detroit despite the fact that the convention occurs during his busiest days. The Mayor is in the farm implement business.

Mayor Samuel M. Jones, of Toledo, one of the best speakers at the Columbus meeting, will come to Detroit with a proper delegation from his city.

President Southwick, of the Atlantic City, N. J., council, reports that the delegation from his place will be as large and as lively as it was last year.

Mayor Collier, of Atlanta, whose eloquence enlivened the proceedings of the last convention, will be on hand with a party of councilmen and aldermen.

Alderman Collings, of Holyoke, Mass., a good talker and a good fellow, will undoubtedly be in the delegation from his town.

Philadelphia is expected to have one of the largest delegations at the convention. Both branches of the council will be well represented.

Mayor McKisson, of Cleveland, who came near beating Mark Hanna out in the recent Ohio senatorial race, will be an interesting figure at the convention.

Mayor M. M. Stephens, of East St. Louis, Ill., who brought his entire council to Columbus, will be at Detroit with a proper party of aldermen.

Alderman Lavery, of Poughkeepsie, N. Y., and president of the New York State Labor Federation, will be on hand to talk about the relations of municipalities to labor.

Providence, New Bedford, Holyoke, New Haven, Bridgeport and Pawtucket are a few of the New England cities which are expected to send good delegations.

Dr. Quitman Kohnke, a member of the New Orleans council, who has made a brilliant official record, will be at

Detroit to talk on the garbage question. He is one of the best posted men on this subject in the country.

Mayor Flower, of New Orleans, will doubtless be one of the most interesting men on the floor of the convention.

Governor Pingree, who was so many times elected mayor of Detroit, is expected to have something interesting to say about city government in his address of welcome.

The Associated Press will not be misrepresented as it was at Columbus. The league will have no more false reports sent out concerning its proceedings.

MacDonough Craven, of the New York department of street cleaning, and in charge of garbage disposal in the great metropolis, expects to be present.

Mayor Pierce, of Marshalltown, Ia., will be at Detroit. He was one of the most interesting talkers at the Columbus convention.

John T. Oakley, vice-president of the New York council, and one of Tammany's most brilliant warriors, will most likely be heard on the convention floor.

THE CONVENTION EXHIBITION.

A most interesting and instructive feature of the convention will be the exhibition, which will be given in the Detroit Auditorium and on the streets. The Auditorium is one of the largest buildings in Detroit, and being adjacent to the Light Infantry Armory, where the sessions of the convention will be held, it is an admirable place for the exhibition. Everything used in municipal work will be exhibited by manufacturers and contractors from all parts of the country. All the latest and best appliances and supplies for which municipalities are in the market will be displayed for the benefit of the officials visiting the Detroit convention. Among the innumerable things that will make up the exhibition will be street cleaning machines, paving and sewer materials, fire and police telegraph apparatus, voting machines, fire department apparatus and supplies, street lamps for electricity, gas and naphtha, electrical supplies, catch-basins, street signs, street sprinklers, water filters, sewer inlets, road rollers, rock crushers, etc.

Manufacturers and dealers who have not already engaged space in the exhibition hall, or arranged for outdoor exhibits, should communicate with the secretary of the League.

REPORT OF STREET PAVING.

A committee of the Civic Federation of Chicago has made the following report of street paving:

Your committee, to whom was entrusted the duty of investigating and reporting upon the different kinds of pavement used in cities, and recommending the system best adapted to the needs of Chicago, begs to present this, its report:

Requisites—In considering the requisites for a city pavement we must take into the account first cost, expense of repairs, durability, comfort of adjoining residents, users of vehicles, safety for animals, facility of repair, economy in the wear and tear of vehicles and animals, facility of opening for underground work, and sanitary conditions.

Not least, in the mind of your committee, is the desirable quality of giving forth little noise from hoofs and moving vehicles. The nervous strain upon our intensely active and often overworked people is greatly increased by the din of hoof beats and thunderous hammering of neavy loads upon hard, uneven pavements, and when to this roar is added the clangor of the motor gong and rattle of the swiftly moving trains, it is no wonder that many of our people reach their homes at the close of day in a state bordering upon nervous exhaustion.

A good pavement must, moreover, in addition to quietness, contribute a firm foothold at all seasons, offer few irregularities for the deposit of soil, and be susceptible to easy cleansing. It must be one that can be easily opened and closed to afford access to the countless pipes which underlie our streets—it should be one that can be quickly and economically repaired, smooth as practicable to afford comfort in using, and contribute to economy in heavy traffic; at the same time it must be durable and not too costly at the outset.

Macadam, Granite Block—The antiquated macadam pavement for city use we will dismiss as impracticable. The granite block, if laid in the most thorough manner and never torn up for underground work, while expensive in first cost, is, perhaps from the standpoint alone of economy in laying and maintenance, the most desirable of city pavements; but in the respect to the wear and tear of animals and vehicles, it is the most costly; in its destructiveness of nerve power in man, it is to be condemned, and in its utter collapse through breaking up for underground work it is a most extravagant pavement.

Asphalt—Asphalt has good points—the chief being its smoothness and sanitary advantages—but on the other hand it is very disagreeable on account of dust, unless kept constantly watered. It is dangerous for animals when covered with frost, and affords a poor foothold for traffic when wet. It is also expensive if of the best grade, and from the experience we have had with it on the north side, the least durable of all pavements and most costly for maintenance.

Brick—We next come to brick as a paving material. In recent years large quantities of this have been laid in many of the smaller cities of the country, and it has given, as a rule, excellent satisfaction. Much of this material was made before its manufacture was well understood, and such has not shown the durability that seems to be a characteristic of the more scientifically manufactured article of later years. The first known use of brick for street paving in this country was at Charleston, W. Va., where a small section was laid in 1870. Three years later a large quantity was put down, which after twenty-two years' service shows a wear of only one-quarter to one-half inch.

ACME AUTOMATIC SEWER TRAPS.

Attention is called to the advertisement of the Acme Automatic Sewer Trap Co., of New York, which appears on another page of this issue. The Acme Automatic Sewer Trap, made by this concern, is self-scouring and so formed that it will offer the minimum of resistance to the flow of water, so that no grease or filth can collect. It is capable of resisting the severest tests of siphonage, momentum and back pressure that can ever possibly be brought to bear upon it in plumbing. The trap is so constructed that the seat and valve can be readily removed from the casing for inspection and replaced without having to disconnect the trap. These traps have been put under the most severe tests by sanitary engineers, plumbers and physicians of the board of health, and indorsed by them. These traps cannot siphon, should water in the seal evaporate, from not being used for a considerable period of time, as such is likely to occur in unoccupied rooms in private dwellings, rooms in hotels, arpartment houses, summer cottages, etc. These traps have an additional safeguard by the mechanical seal, as the valve fits tightly on its seat, forming an hermetical seal; therefore it is impossible for any sewer gas to enter the premises.

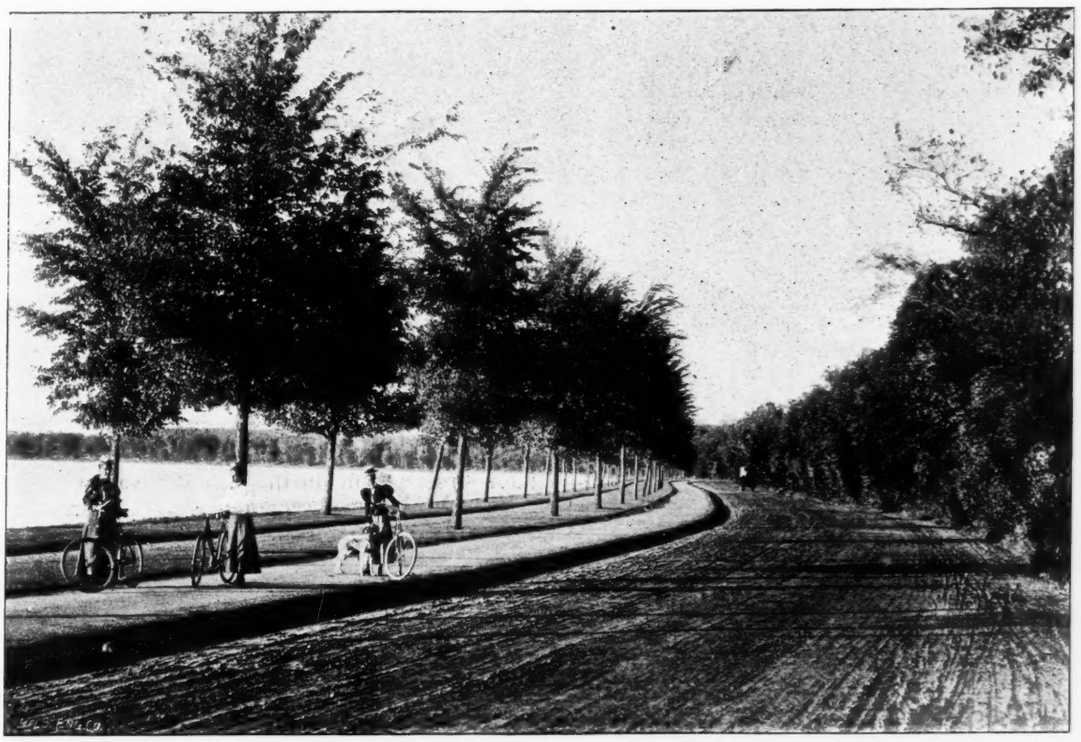
MUNICIPAL REVIEW.

Under this heading municipal reports of all kinds will be reviewed each month. Every report sent to this office will be carefully read and any matter of general interest contained therein will be reviewed in these columns. This department is intended, especially, to give city officials the gist of the reports of their contemporaries throughout the country.

Minneapolis, Minn.—Fifteenth Annual Report of the Board of Park Commissioners.

The report is profusely illustrated with half-tone cuts, some of which, through the courtesy of Secretary Ridgway, are reproduced in this number of City Government. President Folwell, in his address, called attention to the omission of skating facilities in the parks in the winter of 1897, and said: "The public tolerated this deprivation patiently, but the consciousness on the part of the commissioners that the privilege is highly prized has lately led them to restore it, in spite of the fact that the treasury of the board is no fuller than it was a year ago. There is force in the suggestion that but for the skating facilities our parks lie for some months almost unavailable for recreation. It may also be properly urged that skating ponds in our parks reduce the temptation to our youth, especially the school children, to venture on to dangerous waters." Further on in his address the president pays a compliment to the park police for their efficient service, and comments: "It is worthy of note that not only are our policemen becoming more efficient, but their number has been somewhat decreased. This is in great degree due to the growth of a public sentiment which supports authority when exercised in reasonable ways in the protection of public property and the accommodation and personal safety of visitors. In the Kew Gardens of London there is displayed a sign: 'The public protects what is provided for the public enjoyment.' With the co-operation of an enlightened public the task of policing the parks will become lighter and the duty of the officers be reduced mostly to guiding and assisting visitors; but so vitally important is the consideration of personal safety that it will never be possible to dispense with police."

The secretary's financial statement shows total receipts of $212,076.48, and total disbursements of $205,418.40. Expenditures for maintenance amounted to $40,203.28, and for improvements $18,023.40. There are fifty parks and boulevards, with a total acreage of 1,553.218.



BICYCLE PATH AND DRIVEWAY, LAKE HARRIET PARK, MINNEAPOLIS.

Madison, Wis.—Fifteenth Annual Report of the City Water Works.

The water rents for the year amounted to $21,471.64, and taxes amounting to $10,000 were received. The operating expenses were $8,781.13, and the sum of $13,358.29 was expended for construction and extensions. The report says: "To-day we have a plant worth at least treble its cost, which was at the end of our fiscal year, including repairs, $320,581.47; of this amount only $76,000 was borrowed, at 5 per cent. per annum; the balance was all paid in cash specially provided for by the charter from taxation and the net receipts from water rents. From an original indebtedness of $76,000 we have reduced it down to $8,000. The interest on these $76,000 bonds at 5 per cent. per annum for these fifteen years would have amounted to $57,000; whereas we have paid (having commenced to pay off the bonds in 1890), only $39,925, a saving of $17,075. During these fifteen years since construction, our net receipts over and above operating expenses, including permits, have been $78,899.36." It is noted that the water board decided not to call on the city for any aid for the construction fund for the current year, believing that the net receipts would be sufficient to pay for the construction, extensions and improvements. The lighting of the pumping station had been costing over $250 a year, for only five dim burners, and the board therefore put in an electric light plant of 50 incandescent lamps. The plant cost $600, and the cost of running is virtually nominal, consisting mainly in the replacing of the lamps. The fuel bill is not noticeable, and the station

is brilliantly illuminated. At the close of the fiscal year there were 2,334 water takers, and 2,071 were on the meter system. The excellent results of this general use of meters are shown in the report and also in the paper on "Water Meters and Rates," prepared by Superintendent John B. Heim for the Buffalo convention of the American Water Works Association, and published in this number of CITY GOVERNMENT.

DETROIT, MICH.—FORTY-SIXTH ANNUAL REPORT OF THE BOARD OF WATER COMMISSIONERS.

This is a very valuable report, as it shows the condition and operations of one of the most successful municipal water plants in the country. The commissioners state that during the past year, taking effect July 1, 1897, and January 1, 1898, the water rates have been reduced one-half. The rates are as follows:

METER RATES.

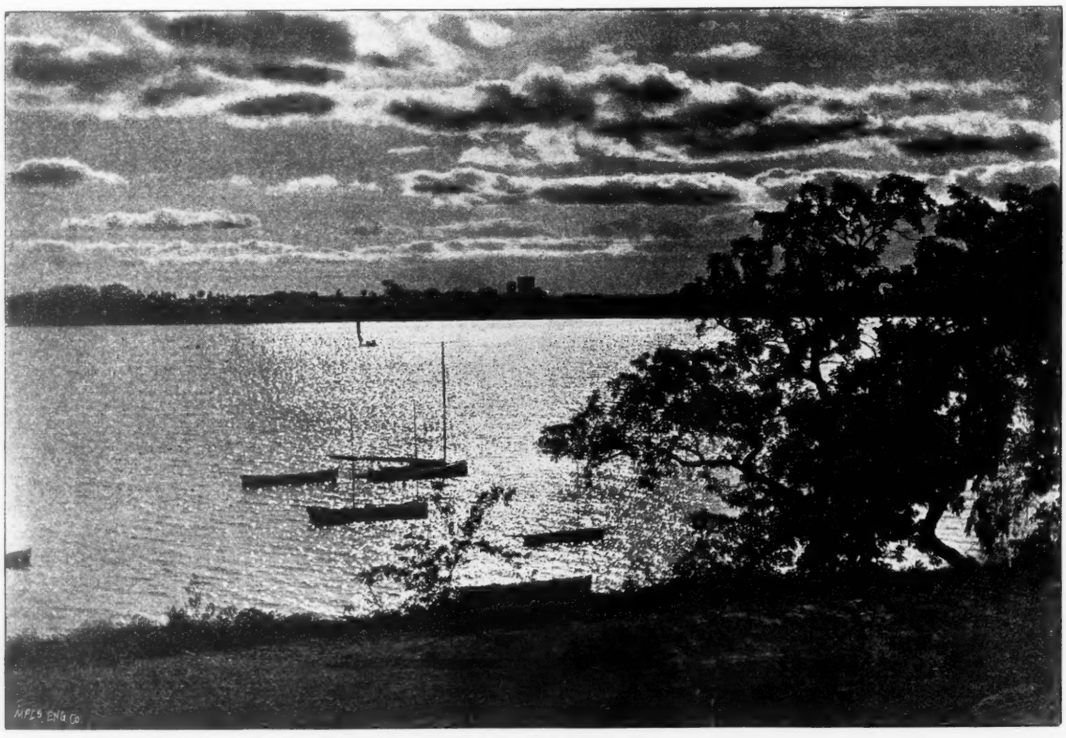
	MONTHLY.
First 15,000 gals	.5 cts. per M.
All over 15,000 gals	.1½ " "
Minimum Rate	75 cts

Payable Quarterly.

Automatic Water Closets, for a family, 1st closet	1 60
" " " each additional	60
" " " for hotels, stores, factories, etc., for 10 persons	2 00
" " " each additional person	20
Rod Water Closets, not less than	6 00
Urinals, not less than	2 00
Wash Hand Basins, for family	50 cts. to 2 00
" " " for other purposes, each person	15
Hose, premises 30 feet front or less	60
" " 30 feet to 60 feet	80
" " 60 feet to 100 feet	1 60
Special rates for larger grounds.	
Fountains	$5 00 to 20 00
Street Sprinklers, each wagon	50 00

Where there is a waste of water a proper increase of rates will be made.

The total receipts for the year were $443,892.18, of which amount $335,997.28 were rates paid. The total expenditures were $424,230.31, of which the principal items were: Construction, $123,211.92; operation and maintenance, $112,311.87; bonds paid, $100,000.00; interest, $79,671.52. The present bonded indebtedness is $1,033,000. In 1889 the board began the introduction of measures for the prevention of waste, and the very satisfactory results are shown in a long table, from which we quote these two significant items:



MOONLIGHT, LAKE CALHOUN, MINNEAPOLIS.

ASSESSMENT RATES.

	FROM JANUARY 1st, 1898. PER ANNUM.
For Family, household purposes	$2 00
Additional Families to first, in same house supplied with one faucet each	1 00
Green Houses.—Special rates.	
Private Stable, for each horse	1 00
Livery Stables, " " "	1 00
Dray and Team Horses, each	50
Cows, each	50
Stores and Offices, from	$1 25 to 12 00
Bakeries, average daily use for each barrel of flour	2 00
Saloons, Groceries and Provision Stores, from	$2 00 to 50 00
Bar, with faucet, from	6 00 to 50 00
Fish Houses	6 00 to 50 00
Slaughter Houses.—Special rates.	
Hotels and Taverns, in addition to family rate, each room	50
Boarding Schools, from	$3 00 to 50 00
Building Purposes, each 1 M brick	02
" " 100 yards plastering	05
" " perch stone	00½
" " minimum	50
Printing Offices.—Special rates.	
Butcher Stalls, each not less than	2 00
Workshops, for 10 persons or under	2 00
" for each additional ten persons	1 00
Estimated quantities of water each 1,000 gallons	05
Boarding Houses, in addition to family rate, each boarder or roomer	60

FIXTURES.

Bath Tub, for families, 1st tub	$1 00
" each additional tub	60
" public, each tub	4 00

YEARS.	FAMILIES SUPPLIED.	WATER PUMPED. TOTAL QUANTITY.	PER FAMILY.
1888	36,863	14,380,166,670	390,098
1897	54,945	12,928,821,326	235,305

On January 1, 1898, there were 5,393 meters in service, nearly all of which are of the Thomson make. The department considers the meter a most effective means of preventing waste.

MANCHESTER, N. H.—REPORT OF THE CHIEF ENGINEER OF THE FIRE DEPARTMENT FOR 1897.

Chief Engineer Thomas W. Lane gives a thorough review of the past year's work and a complete statement of the present condition of the fire department. The report is noticed in the fire department items contained in this issue.

SPECIAL NOTE.

A large number of other municipal reports have been received during the past month, but owing to unusual pressure on our space on account of the report of the water works convention, they cannot be reviewed until next month.

THE CITY CLERK'S PATH OF ROSES.

BY BRIDGES SMITH.
CITY CLERK OF MACON, GA.

It is a well known fact that in cities of thirty or forty thousand population, and in even larger cities, the office of city clerk is the most important of all the city offices, and at the same time the least understood. The position is usually regarded as an easy-going, fat place, wearing but little work on the surface. But it is a position requiring brains, skill, patience, an accommodating nature; a knowledge of bookkeeping in all its ramifications; an ability to write well and rapidly. Such officer is usually not allowed assistance, hence must be his own typewriter and clerk, and not only must he perform all of the multifold duties of his immediate office, but enact the role of private secretary to the mayor.

He must carry in his head the facts and figures relating to his own municipality, as well as of sister cities; he must be ready at a moment's notice to furnish inquiring aldermen any and all sorts of information; must be ready on equally brief notice to write an ordinance or a resolution, or report of a committee, and for this branch of service must be something of a lawyer and versed in legal phraseology. He must be ready to inform financiers of the exact bonded and floating debt of the city, with various other bits of information of similar character in demand by investors. He must know when John Smith sent in a petition to have a certain street worked and what became of it, together with the fate of the many hundreds of other petitions that flutter into council during the year. And so on.

With all this he is expected to be and generally is a human compendium of useful knowledge, an encyclopedia, and a common referee for all bets on all subjects. He must be a railroad time-table, and tell without stopping to think when the trains arrive and depart. He must know the commercial standing of every little shopkeeper, collect their bills against city employes, and besides dispensing liberal information at the public fount, must act as scrivenir for the untaught of the city; contribute his good money to every church needing repair, every poor devil needing more than a pauper's burial; every beggar, and take stock in every town enterprise, to say nothing of being meat for every book agent, male or female, coming or springing up in the city, and their name is legion.

His ears are funnels, into which are poured tales of woe and kicks of kicking people against any unfavorable action of council, and cuspidores into which is spat abuse of council. He must defend in the suavest manner possible all attacks made against the life and character of the mayor and aldermen and brother officials. He must deliver telephone and other messages to the various heads of departments and officials in the city hall, although each has his own telephone. He must keep the run of everybody connected with the government, from mayor to janitor; must know the exact location at any hour of the day or night of every policeman; where every fire alarm box is located, and where every fire is when an alarm is sounded.

MINNEHAHA FALLS, MINNEHAHA PARK, MINNEAPOLIS.

He is supposed to have wonderful influence with the mayor and all high officials, and to use that influence in behalf of every applicant for a position on the fire or police departments, or for any other position in the government. He is looked upon by contractors and all others wanting deals with the city as being in position to render valuable service and push things through. In fine, he holds an important office.

And if, as is frequently the case, as in mine, he is ex-officio clerk of other branches of the government—the board of health, for instance—his duties, responsibilities and cares are increased just that much.

But my experience is that no matter how many or how complicated the duties, the clerk's best and only friend is system. A thorough, well organized and well maintained system reduces labor to a minimum, and the right sort of a man can worry through the intricacies of the office, barring, of course, answering questions and other necessary mouth-work, and still find time to have Saturday afternoon all to himself.

System is everything. Trust but little to memory, for memory is treacherous, and, besides, you should have some little regard for your unknown successor. Have a properly ruled book for everything, and never fail to keep up the books. Govern the office with cast-iron rules and never allow yourself to break them. A little neglect will cause work to accumulate wonderfully. Punctually observe your office hours, and thus compel the public to do the same.

Books and blank forms should be prepared with uniformity, and always with one view, that of saving time and making a record. If the start is made right, the rest is easy.

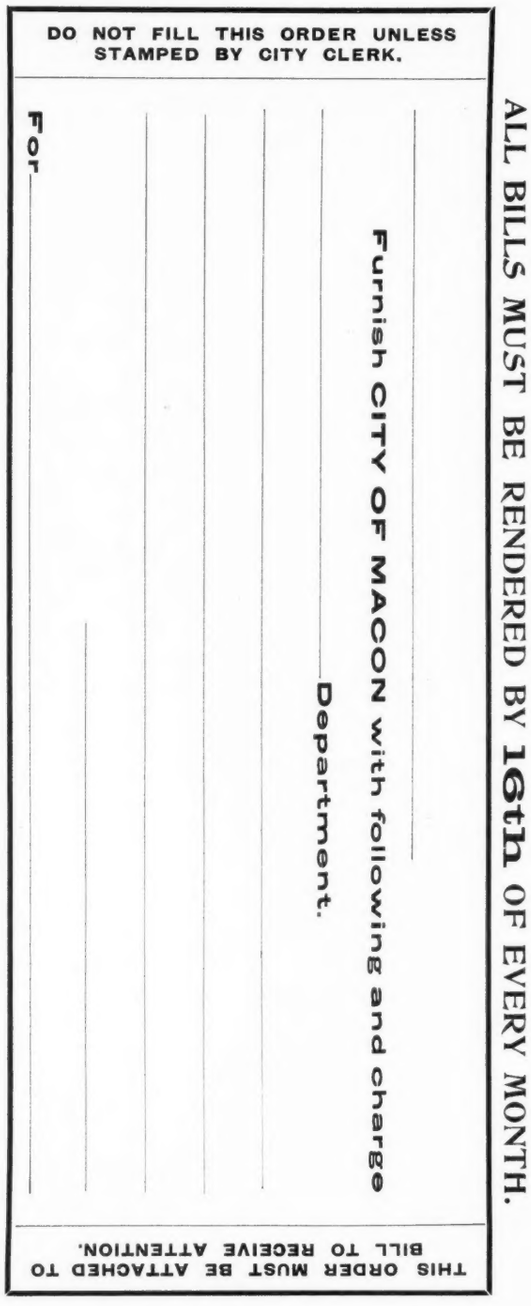
As my experience may be of some benefit to other clerks, just as that of others may be of benefit to me, let me go into detail as to a few of the important features of the office:

1. Neither war, famine nor pestilence will stop people from petitioning, and as petitions are therefore a necessary part of the office, I will begin with them. John Smith has an idea that the assessors have placed too high a valuation upon his domicile, and he wants council to reduce it. The average John will write a petition on a scrap of paper which would prove bunglesome to endorse and file, for you know the end of every petition is the file. Well, for this scrap of paper I have a form printed on very heavy paper, say 7 x 9 inches, which when folded twice gives me a document 3 x 7 inches. On this is the endorsement, reading as follows, the written words being in italics:

PETITION
of
John Smith,
for
Reduction
of
Assessment.
Read first time
May 20, 1898,
and referred to
the Committee on
Finance.
Reported on
May 22,
and *adopted.*

Before this reaches the council chamber it is entered in a "Book of Petitions," paged alphabetically, recording the fact that on May 20 John Smith sends in a petition for reduction of assessment, leaving the spaces for the committee to which it will be referred and the date and disposition to be filled out after the meeting of council. Now, the petition goes into council and is referred to the finance committee. After the committee has duly considered the matter, their report is written on the inner side of the cover or envelope just described, and it goes to council for action. That action is duly endorsed on the cover and also entered in the book, so that next day, or next year, or next ten years, you have only to look among the S's in the book to know all about John's petition. But, should the original paper be wanted in court, or for some other purpose, it is easily found in the file labeled "Reports of the Finance Committee." In this simple, but effective way, an accurate account is kept of the various petitions, and information concerning them is always on tap.

2. Now, let me take up another important feature, that of bills or vouchers, and the method of ordering supplies or material for the various departments of the city government. Possibly the same results are obtained by other methods, but surely not with so little ease, accuracy, time and labor. Each officer or head of department having the authority to purchase supplies or material, or contract for work, is provided with a book of blank orders like the following:


DO NOT FILL THIS ORDER UNLESS STAMPED BY CITY CLERK.
For
Furnish CITY OF MACON with following and charge
Department.
THIS ORDER MUST BE ATTACHED TO BILL TO RECEIVE ATTENTION.
ALL BILLS MUST BE RENDERED BY 16th OF EVERY MONTH.

The official fills out the blank and sends it to the clerk. In a book properly ruled is entered by him the date, official ordering, from whom, and the articles itemized and for what department, leaving the space for the price of each article unfilled until the bill comes in. The order is then stamped and is ready to be filled. On the 16th of the month, when the bill comes in with the order or orders attached, it is taken to the order book and each item checked off and the price entered in the column headed with the department for which the articles were purchased. This method serves a number of purposes. It shows everything purchased, from a paper of pins to a steam engine, by whom, what for and for what department. It is a record of prices for the various articles. It is a complete check on the bills. It saves the committees the work of looking over and investigating the

bills. It shows at any time of the year what each department has spent and what for. It shows the number of horses shoed, the amount of coal consumed in the fire engines or for other purposes, the amount of hay, oats, or other feed used for stock, the number and kind of tools purchased, and in fact it shows in the minutest detail every possible purchase by the city, and shows to the finance committee in making up the approaching appropriations just how much is necessary in each department.

This same system runs through the entire office, and as you see, does not require so much work, and yet the results are large.

The clerk who makes it the rule of his life to look closely after the interests of his city, with a willingness and ability to be obliging to the public, and carefully, without overdoing it, relieving the mayor and aldermen of all clerical and drudgery work, making his office a model for system, and, above all, who is not afraid of work, need not pass many sleepless nights as to his re-election. Merit cuts little figure with politicians, but the man does.

The interchange of ideas among city clerks would redound, in my opinion, more to the benefit of cities than among almost any other class of officials.

COL. WARING ON STREET CLEANING.

The report which George E. Waring, Jr., made on his work while at the head of the street cleaning department of New York, and which the Tammany administration refused to publish, has been printed as a supplement to Municipal Affairs, issued by the Reform Club. The report, which is a most elaborate and exhaustive exposition of the present systems of street cleaning, both here and abroad, makes an attractive, substantially bound volume of 230-odd pages. It is variously illustrated by half-tones, and made doubly valuable as a reference volume by an elaborate system of tables giving an immense amount of data relative to the many problems involved in the cleaning of streets and the disposition of garbage.

The report under consideration is divided into four grand divisions — "Observations of Street Cleaning Methods in European Cities," "Review of the General Work of the Department of Street Cleaning in New York," "Report of the Snow Inspector," and "The Adjustment of Labor Questions by the Committe of Forty-one and the Board of Conference."

The second division, dealing with the work in New York city, is further subdivided into the reports of the master mechanic, reports on the final disposition of garbage and sweepings, on the cost of street sweeping, utlization of sweepings, ashes, waste paper, etc.

The first of the subjects treated, that of the street cleaning methods in vogue abroad, is a record of personal observations on Colonel Waring's part, and deals with the general problems involved as presented in the cities of Vienna, Budapest, Munich, Berlin, Cologne, London, Birmingham, Paris, Turin and Genoa.

On the whole, Birmingham seems to have come in for Colonel Waring's warmest admiration. "To the student of municipal affairs," he sums it up, "it reveals a perfection of system, of executive completeness and of economy, which, if his standards have been formed in America, is simply amazing."

As to the causes back of all this, Colonel Waring remarks:

"The chief lesson to be learned from Birmingham—and its methods are duplicated in English towns generally—is the lesson of non-political, non-shirking and non-poor-man coddling business management of municipal affairs. It shows us that a department of public works should not be a department of charities, and that—aside from proper and generous charity—the money of the taxpayer should be used with the same care and economy that are so imperatively necessary to the successful management of private works.

"A word of explanation is proper as to the 'poor-man' element of the problem, and it applies to the question of public wages as well. The class that is obliged to work at hard labor is the happiest class in the community when it has employment, and sympathy for it should be limited to its fears for a rainy day, and to its unsatisfied laudable ambition to get along in the world. All must desire security and relief for the one and advancement for the other. The best way to secure these is through the general prosperity of the community. This cannot be advanced by favoring a special few who are lucky enough to get a place on the city pay roll at the cost of the multitude who have to pay the cost. Fair wages for honest work is all that a wise and beneficent government can properly give to any man from the public purse—unless he is a pauper who must be kept from suffering. Too good a chance for the poor man only crowds the ranks with those who flock in from abroad, and makes life all the harder for those with whom they come in competition."

Concerning the subject of European street cleaning in general, Colonel Waring says that "the most important and suggestive consideration is that which concerns the relation of the people to the work, and, largely as leading to that, the manner in which the police intervene to prevent the littering of the streets.

"The regulations in European towns," he goes on, "are no better than ours. The laws and ordinances are substantially the same, but there is the immense difference that in Europe laws and ordinances mean something and are executed, while here they are treated as matters of form."

Continuing along a slightly different line, he says:

"As to methods available for the improvement of the New York system very little was observed. As a rule, our carts are better than theirs, being lighter and tighter. Our brooms are probably better and our final methods of disposition are quite as good, owing, no doubt, to our much better conditions for dumping refuse. * * *

"Another matter of special interest to New Yorkers is that our system of street sprinkling is entirely unique. So far as I could learn, the world has never before conceived of such a method—where only that part of the street lying in front of the property whose owner pays a private contractor a sprinkling rate, gets any sprinkling whatever, and where the volume of water used is regulated by the sweet will of the driver, without restraint from any official authority. In Europe street sprinkling is always under the control of the authority by which street cleaning is regulated. It is necessarily an inseparable part of the same work. * * * There is no more reason for farming out the work of the sprinkling of streets than that of sweeping them. Both are functions of the municipal authorities, and should be kept under close control."

THE OMAHA EXPOSITION OF 1898

Beats the Centennial Exposition which occurred in Philadelphia in 1876 away out of sight and is next to the World's Fair at Chicago in importance to the whole country. All of the States in the Trans-Mississippi region are interested, and a visit to Omaha during the continuance of the Exposition, from June to October, inclusive, is recommended to all.

Buy your excursion tickets over the Chicago, Milwaukee & St. Paul R'y. An illustrated folder descriptive of the Exposition will be sent you on receipt of 2-cent stamp for postage. Address Geo. H. Heafford, General Passenger Agent, Chicago, Ill.

CITY GOVERNMENT.

Devoted to all Departments of Municipal Work.

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SPECIAL NOTICE.

City officials and friends of City Government visiting New York are cordially invited to make the office of City Government their headquarters during their stay in the city. Desks, stenographers and stationery are placed at their disposal, and their mail may be addressed in our care.

NOTE AND COMMENT.

Mayor Harrison, of Chicago, some time ago announced his determination to make the street railway companies pay the city something like 10 per cent. of their gross earnings for the use of the public streets. A number of very respectable bankers and business men, avowing their devotion to the interests of the poor public, but neglecting to file a schedule of their street railway holdings, constituted themselves into a committee and volunteered to relieve Mayor Harrison of the duty and responsibility of settling the questions at issue between the city and the street car magnates. They graciously offered to take this important piece of municipal business out of the mayor's hands and settle it to the satisfaction of everybody concerned. But Mayor Harrison politely rejected their services. We admire the mayor for running the affairs of his office himself, but how rude of him to suspect anything but absolute unselfishness in the motives of a committee representing the wealth and fashion of the city!

The latest city to profit by unrestricted competition in the bidding for asphalt paving is Newark, N. J. Until this season the Barber Company had everything its own way in Newark, and the lowest bid it ever put in was $2.35 a square yard. Last month, with competition open to companies outside the Trinidad monopoly, the Newark board of works received a bid of $1.67 from the Barber Company. The contract, however, went to the New Jersey Asphalt Company, whose bid was $1.55 a square yard. A Newark daily paper editorially says:

"There is no question of inferior material here, inasmuch as the contracting company guarantees to keep the pavements laid in good condition for a period that is a safe insurance for the city and property owner. It is evident that the Barber Asphalt Company, by its monopoly of Trinidad Lake asphalt, and by the ingenious fictions it created to make it appear that the only genuine asphalt in the world fit to pave with was Trinidad Lake, has been paid exorbitant prices for its pavements laid in Newark."

Among the numerous cities which have broken away from the Trinidad monopoly since CITY GOVERNMENT began to show the absurdity of specifying against worthy competition are Buffalo, Cincinnati, Cleveland, New Orleans, Detroit, Pittsburg, Rochester, Louisville, Saginaw, Erie and Syracuse. About the only city of any note that still clings to the Trinidad monopolistic specifications is Milwaukee.

Director of Public Works Thompson, of Philadelphia, awarded a large number of sheet asphalt paving contracts on June 1. Nearly all of the contracts went to the Vulcanite Paving Co., which is the Trinidad concern of Philadelphia, and the prices ranged from $1.20 to $1.30 per square yard. These low prices are the result of competition.

An editorial in the New York *Commercial Advertiser* says: "One of the subjects to be discussed at the convention of the League of American Municipalities, in Detroit, is the remuneration to cities for local franchises, and the discussion ought to result in dissipating a great deal of the talk about municipal ownership and management of lighting plants and street railroad lines. Corporations controlling such interests now are often denounced as monopolies, but where they are compelled to pay a suitable annual compensation to municipalities based on earnings they cease to be monopolies. If earnings increase from any cause the public as well as the corporations profit, and where this is the case the privileges of the latter cannot be called exclusive. If corporations should attempt to wring from the public more than fair compensation for the services they perform it would only be to hand back part of such gains to the public again. The cure for local monopolies, therefore, is not in local application of the principles of Socialism and Populism, but in exacting a proper return for municipal franchises. Corporations would not then be at the mercy of political bosses and blackmailers and the community would enjoy all the advantages of municipal control without any of its risks and responsibilities. It is to be hoped that the discussion at the Detroit convention will result in making such facts clearer than they have been heretofore."

Unless the war excitement should be very great, the second annual convention of the League of American Municipalities, to be held at Detroit, Mich., in August, will attract almost world-wide attention. It is growing on people that the question of city government is of tremendous importance, and that the tendency of people to flock into the cities is making it every year more and more important. At this convention such questions as the municipal ownership of public utilities, contract against day labor, city purchasing agencies, and disposal of garbage, will be discussed by men who have both theoretical and practical knowledge of the questions considered.—*Argus*, Sioux Falls, S. D.

The Lewiston, Me., *Journal*, after mentioning the subjects to be discussed at the convention, says: "The more these problems are seriously considered, the less attention will be paid to partisan maneuvers in cities and the further will reform move into an actual career as distinguished from rhetorical effect. Everybody talks reform, but reform doesn't come so fast as it should, because attention is not concentrated on the things to be reformed and on the best way to effect the desired end. This Detroit meeting ought to be attended by every mayor in Maine and

by many of the members of our city governments and heads of departments."

In a long editorial, the Syracuse, N. Y., *Post* says: "As those who will take part in this convention will be mayors, councilmen and other city officials, the discussions ought to prove very profitable. It is to be hoped that the attendance will be very large, and all persons interested in the subject of municipal government who can arrange to attend the Detroit convention will find it both interesting and improving. In this connection we would suggest that the Syracuse delegation make an effort to bring the next national convention to this city. Detroit is making arrangements to entertain the convention handsomely and incidentally to advertise that city as one of the most attractive. Syracuse could entertain the convention next year in a way that would be creditable to itself and delightful to its guests."

The second convention of the League of American Municipalities will be held at Detroit this summer. Preparations for representation and participation in this gathering of men directly and practically interested in the management of city affairs are being made by some of the cities of the country. It is hoped by those who are interested in matters of municipal improvement and advancement that the convention will be a great success in every way—in attendance, in valuable discussions, and in a further awakening of an enthusiastic interest in the purpose of the organization. It is to be hoped that Columbus will be well represented at this gathering and profit to the fullest possible extent by the discussions and comparison of notes. This is the most practical association of the kind that has ever taken up municipal problems, and for that reason its work ought to be the most important and useful.—*Dispatch*, Columbus, O.

The second annual convention of the League of American Municipalities will be held in Detroit during the four first days of August next. It promises to be a most important gathering. Unlike some of the other municipal leagues, this one is made up of the practical administrators of the large cities of the country—the mayors, city councilmen and heads of departments. All parts of the country are represented, and it is to be hoped that Baltimore will participate in an adequate way in the deliberations of the body. The programme of the convention, which has already been prepared, includes the discussion of such subjects of importance as municipal ownership of public service industries, remuneration to cities for franchises, the civil service, garbage disposal and street cleaning, and lighting and water supplies. It seems as if the city of Baltimore is particularly interested in every one of these subjects. We are clearly behind the times on municipal ownership of public service industries and proper remuneration for important franchises. Every one knows how lax we have been in the matter of the public service, while in the matter of the disposal of garbage and the cleaning of streets we are only at the crude stage as yet. The only one of the topics on which the representatives of Baltimore can talk up proudly is the water supply. We certainly are as well placed in this regard as any great city in the Union, and immeasurably better supplied than most of the large cities.—*News*, Baltimore, Md.

The questions which have to be met by city officials are numerous and sometimes perplexing, and the taxpayer escapes or suffers in accordance with the manner in which his representatives meet them. The tasks of the average city officials are similar in character, because cities grow in accordance with the demands of population and not in accordance with prearranged plans. It would seem, therefore, that conventions such as the annual meetings of the League of American Municipalities could be made profitable to the taxpayer. There would be no question as to this were it not for the fact that we are in the habit of changing our officials quite often, and electing new men to confront questions that require experience on the part of those whose duty it is to solve them. A man may be a mayor, an alderman or a member of a board of public works this year, and next year he may be a private contractor bidding for work at the hands of the municipal boards of which he was erstwhile a member, while a new official is puzzling his brain over questions the retired official is more competent to answer. The ex-official cannot be expected to remain a member of a league of city officials, or to continue to attend the league's meetings. Therefore the average municipality has no trained men to lean upon.

However, some good ought to come from gatherings of city officials, as there will probably be enough holdovers in each convention to impart valuable information to the new members of the league.—*Wisconsin*, Milwaukee, Wis.

The Wilmington, Del., *Evening* sends a column editorial with the declaration that "it would be well for the city of Wilmington to be officially represented at this important convention."

The Baltimore *Herald*, in the course of an editorial, says: "For those who are charged with the management of municipal affairs the Detroit convention should prove of the greatest interest, and the interchange of ideas which it will facilitate should redound to the benefit of all cities."

NEW CHARTER FOR SAN FRANCISCO.

At a special election held on May 26, the electors of San Francisco adopted the new charter drawn up by a commission of leading citizens. The new charter, which will go into effect January 1, 1900, includes as one of its chief features the initiative and referendum. On the petition of fifteen per cent. of their number, the electors can have any subject of legislation brought up for a vote, and if it is approved by a majority of the voters it becomes part of the municipal law. The new charter gives the mayor much additional power, vesting in him many civic appointments which have hitherto been made by the governor of the state.

CHICAGOS WASTE PAPER.

The city of Chicago has awarded a contract for collecting and disposing of the city's waste paper to George H. Jenney for a period of ten years. The contractor will pay the city twenty per cent. of his receipts from all sources during the first five years and twenty-five per cent. during the last five years. It is expected that the city will derive a revenue of about $20,000 a year from this source.

CONVENTION OF ELECTRICIANS.

President Ellett and Secretary Blackwell have sent out a card announcing the third annual convention of the Fire and Police Telegraph Superintendents and Municipal Electricians, to be held at Elmira, N. Y., August 9 and 10. Several papers of general interest will be read by well-known electricians, important business will be transacted, and a number of entertaining diversions have been arranged. Special arrangements are being made for the entertainment of the ladies who will accompany the delegates.

THE CONVENTION PROGRAMME.

The programme for the Detroit convention, as arranged by the Executive Committee of the League, is as follows:

MONDAY, AUGUST 1.

10 A. M.—Address of Welcome—Hazen S. Pingree, Gov. of Michigan.

Address of Welcome—William C. Maybury, Mayor of Detroit.

Response—John MacVicar, President League of American Municipalties.

2 P. M.—Reports of Officers.

Addresses and General Discussion:

Garbage Disposal—What has been the experience of municipalities in attempting to collect and dispose of garbage in a sanitary and economical manner? Are the present utilization and incineration inventions satisfactory, and what does it cost to operate them?

4 P. M.—Entertainment.

8 P. M.—Addresses and General Discussion:

The Civil Service—What results have been attained by requiring aplicants for positions in city departments to pass an examination and making their tenure of office dependent on good behavior and mental and physical ability? To what departments should civil service laws apply?

TUESDAY, AUGUST 2.

10 A. M.—Addresses and General Discussion:

Boards, Single-Headed Commissions or Council Committees—Should the administrative affairs of the departments of public works, water, fire, police, parks, charities and correction be conducted by boards, single-headed commissions or council committees?

2 P. M.—Addresses and General Discussion:

Regulation of Saloons—What policy is best to use in enforcing the laws pertaining to saloons?

Street Paving—What are the relative merits and cost of the various paving materials?

Evening—Entertainment.

WEDNESDAY, AUGUST 3.

10 A. M.—Addresses and General Discussion:

Remuneration to Cities for Franchise Rights In, Over and Under Public Streets and Alleys—What remuneration, if any, should be exacted from light, water, street railway, telephone and subway corporations and how should it be collected?

Afternoon—Entertainment.

8 P. M.—Addresses and General Discussion:

Municipal Ownership of Public Service Industries—What progress has been made in this line in the United States and Canada and with what results? What should be its limitations?

THURSDAY, AUGUST 4.

10 A. M.—Addresses and General Discussion:

Public Water Suplies—What means should a municipality employ to supply its people with an ample supply of pure water at equitable rates? Is the general use of meters desirable? What systems of filtration are satisfactory?

2 P. M.—Election of Officers.

Election of Next Meeting Place.

Evening—Entertainment.

All the delegates are expected to participate in the discussion of the topics on the programme. The formal addresses which will open each discussion will be limited to ten minutes for delivery. The Executive Committee is not yet ready to announce the names of the formal speakers.

HOW TO JOIN THE LEAGUE.

The memberships in the League of American Municipalities are held by the municipalities, and the mayor, all council members and heads of departments of a membership city are entitled to all the privileges.

Any municipality is eligible to membership, no matter whether it be city, town or village.

To acquire membership the city council, town or village board should pass a resolution authorizing the mayor, controller, city clerk or any other official to remit the annual membership fee to the secretary of the League and have the city enrolled as a member.

A certificate of membership is then issued to the city by the president and secretary of the League. Individual membership cards are issued to every official of a membership city.

The constitution of the League says:

SECTION 1.—Any municipality in the United States or Canada may become a member of this organization.

SEC. 2.—Each and every municipality becoming a member of this organization shall pay an annual membership fee as follows: Cities under 25,000 population, $20; between 25,000 and 50,000, $30; between 50,000 and 100,000, $40; between 100,000 and 200,000, $50; over 200,000, $60.

SEC. 3.—The membership of any municipality shall cease upon the discontinuance of the payment of the annual membership fee.

EVERY CITY SHOULD JOIN.

Your city can make no mistake by joining the League of American Municipalities. As a patriotic American community, it behooves you to lend your best support to a movement having such a laudable object as the solution of the various problems involved in the improvement of our cities. As a progressive municipality, proud of your achievements, you should be glad to lend your aid to the less fortunate cities which are striving to reach a higher plane of municipal life. As an ambitious city, without the disposition to be found lagging in the march of municipal progress, you should enjoy every advantage offered by membership in this league. In taking membership in the League of American Municipalities your city council will have the unanimous approval of the taxpayers. The cost is trifling, and it will be money well spent in a good cause.

CLEANING ASPHALT STREETS.

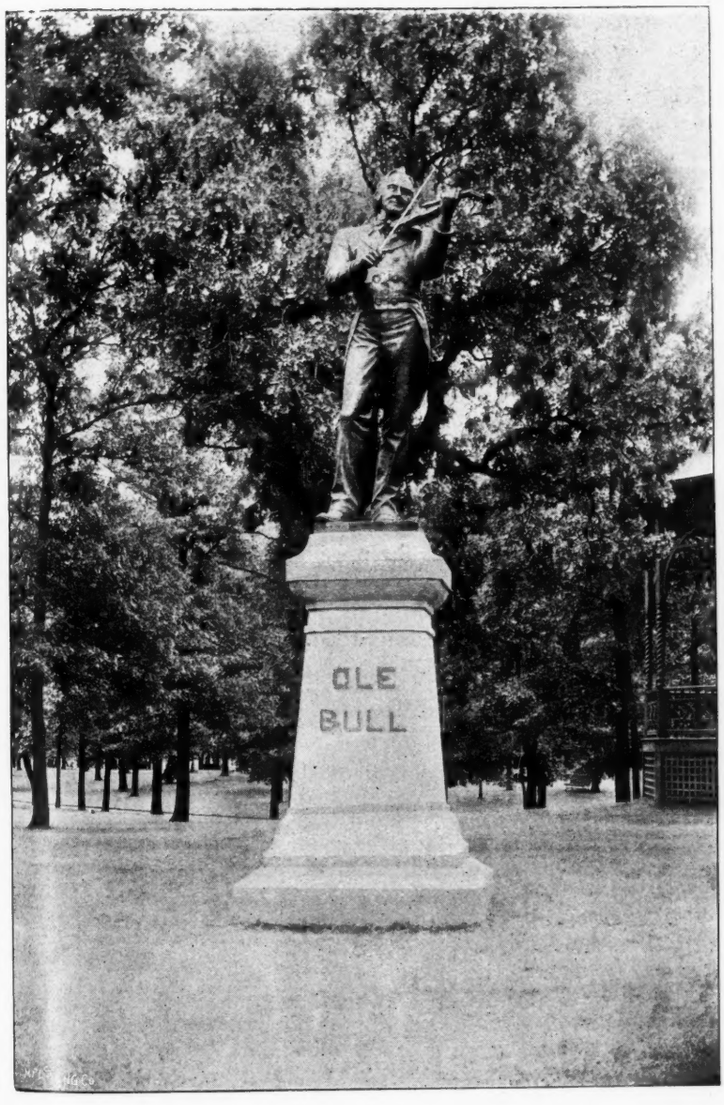
City Engineer Rundlett, of St. Paul, has devised an effective and entirely satisfactory method of cleaning the asphalt streets. All the dust that cannot be swept away with hand brooms by the men at work during the day time is carried away by hose flushing at night. It requires seven men to operate the hose flusher and about two miles of streets are washed during the night. The principal business streets are flushed every other night, and the other districts twice a week. A length of jointed hose a block long is employed in the work. When this hose is flat it is placed inside firm iron grappling hooks, just the shape of the hose. These hooks are attached to the upper part of small trucks, about three feet long, on wheels six inches in diameter. These wheels are very much like a roller skate, and keep the hose off the pavement and enable the men operating it to move it about easily at will. When the water is turned on the hose fills, of course, and as it fills the pressure holds the hose firmly inside the iron hooks on the truck.

During the day time forty-four uniformed street sweepers are employed on the asphalt streets to gather up all the dirt, waste paper, etc., that is scattered on the thoroughfares by the populace. The men wear white duck blouses, trousers and white duck helmets. The men are supplied with hand brooms, bags and bag-carriers.

CITY GOVERNMENT will organize a special party to go from New York to the Detroit convention. Particulars will be announced soon. The party will be made up of delegates from New England, New York and New Jersey.

A PRACTICAL TEST OF KILFYRE.

A highly successful demonstration of kilfyre, the new dry fire extinguisher, was given on Tuesday, May 1, in front of the Hotel Bartholdi, corner Broadway and Twenty-third street, N. Y. City, in the presence of a very large number of spectators. A building 14x9x7 of cheap and highly inflammable material, saturated with North Carolina pine tar and kerosene, heavily hung with newspapers, was set on fire and instantly blazed with such fierceness that the spectators were driven promiscuously back by the overpowering heat. When the conflagration had reached such a height as to cause serious alarm to the adjacent property-owners, there began a vigorous cry for the extinguishment of the fire, when a small man, not much larger than his fire extinguisher, approached and by one hurl of the powerful dry, dust-like material into the mass of the flame, put it "black out" quicker than you could count 1-2-3, and there was not a burning ember left, although he did not use over one pint of the dry material.



STATUE OF OLE BULL, IN LORING PARK, MINNEAPOLIS.

While this test was taking place uptown there was an alarm sent in from rear of the post office, where a large tar pot had boiled over, creating a fierce blaze. The alarm brought Chiefs Kruger and Cassels to the scene, together with half a dozen engines, two hook and ladder companies and one patrol wagon, none of which were necessary, as the firemen with little Kilfyre, which had been previously laid in by the fire department, put out the fire with no loss whatsoever, other than that done by the fire.

Truly Kilfyre is a wonderful article, extinguishing fires with no damage of any kind. It is simply a dry, dust-like material in an open tube, twenty-two inches long and two inches in diameter, so simple a child can use it. Chemists say it will never lose strength, and there being no machine to learn or get out of order, the extinguisher can be depended upon at all times, in any place. Kilfyre has a promising future, and its owners a veritable gold mine.

WATER WORKS NOTES.

—John Fisher has been appointed superintendent of the water works at Hamilton, Ohio, at a salary of $85 per month.

—F. F. Tebbets, chairman of the water committee of the Sacramento, Cal., council, is urging the purification of the public water supply in that city. He says: "I have made a study of the various plans and suggestions offered for the treatment of Sacramento River water and have come to the conclusion that the Warren filter will best answer the purpose and meet the requirements of our people. The Warren filter plant usually consists of a settling basin, one or more filters, a weir for controlling the head, together with necessary pipe connections. This system could be applied to the present pumping plant and in no manner alter the present system, save an alteration which everybody will favor—that is, clear, wholesome water. The plan I am in favor of will be no experiment, as there are over 100 of these filters now in use in as many different cities throughout the United States. I believe that for $30,000 we could erect a filtering plant in connection with our present water works that would furnish us with over 1,000,000 gallons of pure, clear water a day."

—The council of St. Joseph, Mo., has appropriated $2,500 for the use of the special water committee in making a survey of the city as the initial step toward the establishment of a municipal water plant.

—The new water rates at Chicago are based upon the frontage of buildings. For the average sized building upon a twenty-five foot lot the rate, if it is a one-story structure, for one year, is $8. This rate is gradually increased for the height of the building. For steam-heating purposes the charge for the city water is 5 cents for each ton of coal used. For the use of hose upon a lot of a frontage of thirty feet or less the charge is $2 a year. Boarding-houses in which more than twelve people are housed have a special schedule, beginning with $3 for a bathtub and ending with an extra charge of $5 where liquors are sold upon the premises. Hotels also have extra charges beyond the frontage rates, as have office and store buildings, saloons, clubs, stables and barber shops. The rate for fountains is determined by the diameter of the jet, and the stipulation is made that a fountain shall not be used for more than four months of the year or for more than four hours a day. Large users of water are charged according to meter measurement.

WELSBACH OIL LIGHTS IN CENTRAL PARK.

The ordinary naphtha lights in Central Park, New York, appear at a great disadvantage in comparison with the Welsbacn naphtha lamps which have been placed in their company. One Welsbach lamp seems to be worth half a dozen of the ordinary naphtha lights. The Welsbach oil light is as brilliant as the Welsbach gas light.

CONSTITUTION

OF THE

League of American Municipalities.

Article I.—Name and Objects.

SECTION 1.—The objects of this organization, which shall be known as the League of American Municipalities, shall be the general improvement and facilitation of every branch of municipal administration by the following means: First, the perpetuation of the organization as an agency for the co-operation of American cities in the practical study of all questions pertaining to municipal administration; second, the holding of annual conventions for the discussion of contemporaneous municipal affairs; third, the establishment and maintenance of a central bureau of information for the collection, compilation and dissemination of statistics, reports and all kinds of information relative to municipal government.

Article II.—Membership.

SECTION 1.—Any municipality in the United States or Canada may become a member of this organization.

SEC. 2.—Each and every municipality becoming a member of this organization shall pay an annual membership fee, on or before December 1, as follows: Cities under 25,000 population, $20; between 25,000 and 50,000, $30; between 50,000 and 100,000, $40; between 100,000 and 200,000, $50; over 200,000, $60.

SEC. 3.—The membership of any municipality shall cease upon the discontinuance of the payment of the annual membership fee.

Article III.—Meetings.

SECTION 1.—The annual meeting of this organization shall be held at such place as the annual convention may determine, and at such time as the executive committee may determine.

SEC. 2.—Each and every municipality holding membership shall be entitled to send its mayor and as many members of its general council and its board of aldermen as it may desire as delegates to the annual meeting.

SEC. 3.—On the questions of electing officers and selecting place of annual meetings, each and every member shall be entitled to one vote, which shall be the majority expression of the member's delegation; on all other questions the vote of the majority of delegates present shall control. All delegates shall be entitled to participate in the discussions and debates of the meetings.

Article IV.—Officers.

SECTION 1.—The officers of this organization shall consist of a president, vice-president, a secretary, a treasurer and three trustees, each of whom shall be a municipal official at the time of his election, except the secretary, and no two of whom shall be from the same state. This board of officers shall constitute the executive committee.

SEC. 2.—There shall be appointed at each annual meeting an honorary vice-president from each state represented, and such standing committees as the president or the convention shall deem necessary.

Article V.—Duties.

SECTION 1.—The president shall preside at all meetings of the organization and at those of the executive committee, shall have the appointment of all committees, and shall perform such other duties as are incumbent upon the office. In the absence of the president, the vice-president shall assume and perform the duties of the office.

SEC. 2.—The secretary shall keep accurate minutes of the proceedings of the organization and of the executive committee, shall have charge of the bureau of information, shall conduct all correspondence, shall issue notices of all meetings of the organization, shall collect and receipt for all fees and dues and pay them to the treasurer quarterly, taking and keeping a receipt for same; and keep accurate account between the organization and its members, and shall receive such compensation and give such bond as the executive committee shall determine.

SEC. 3.—The treasurer shall receive from the secretary and keep all money belonging to the organization, giving his receipt therefor; shall pay all bills approved by the president; shall keep an account of the funds of the organization, and submit to it at each annual meeting a report of all receipts and disbursements during the preceding year, and shall give such bond as the executive committee may determine.

SEC. 4.—The bonds provided for in the two preceding sections shall be in some solvent security company, and the premiums thereon shall be paid by the organization.

SEC. 5.—The executive committee shall meet on the morning of the first day of the annual meeting of the organization, and as often as the president may direct, and consider and report all matters referred to it by the organization.

Article VI.—Bureau of Information.

SECTION 1.—The organization shall establish and maintain, under the care of the secretary, a bureau of information for purposes as set forth in section 1 of article I. of this constitution.

SEC. 2.—It shall be the duty of each and every member to take such action as it may deem proper, through its mayor or its general council and board of aldermen, to have the heads of its various departments send copies of all published public reports to the bureau of information, and to have said officials extend all reasonable courtesies to said bureau in the way of furnishing special information as requested.

SEC. 3.—It shall be the privilege of each and every member, through its mayor, council or heads of various departments, to request any special information relative to municipal work from the bureau of information.

SEC. 4.—It shall be the duty of the bureau of information to comply with all reasonable requests made by members for information, and to publish all generally interesting information gathered and compiled by it.

Article VII.—Order of Business.

SECTION 1.—At the annual meeting of the organization the order of business shall be as follows:

1. Roll call; 2, reading of minutes of last meeting; 3, president's address; 4, report of secretary; 5, report of treasurer; 6, report of executive committee; 7, report of other committees; 8, addresses, papers and discussions; 9, election of officers; 10, election of next meeting place.

Article VIII.—Amendments.

SECTION 1.—The foregoing constitution may be amended at any annual meeting by a two-thirds vote of the members present, provided such proposed amendments shall have been submitted in writing not later than the first day of the annual meeting.

PARK OFFICIALS TO MEET.

The Park and Outdoor Art Association will hold its annual convention at Minneapolis, Minn., June 22-25. This association was organized at Louisville, Ky., in May, 1897, by a large number of park commissioners who assembled there to exchange views and form mutual acquaintance. That there is much to be gained by a general discussion of public park work cannot be disputed, and the Minneapolis convention deserves to be largely attended. The board of park commissioners and the citizens of Minneapolis have made arrangements to entertain the delegates in fitting style.

FRANCHISE NOT EXCLUSIVE.

The Detroit street railroad franchise controversy was terminated on May 23 by a decision of the supreme court of the United States adverse to the Detroit Citizens' Street Railway Company. The latter is the successor to the Detroit City Railway, which by an ordinance passed by the Detroit council in 1862 was exclusively authorized to construct and operate street railways in the city. By an ordinance of 1879 this right was extended thirty years. In 1894 an ordinance was passed granting to the Detroit Railway the right to construct railways upon some of the streets occupied by the Citizens' Company. The latter brought suit against the Detroit Company and the city of Detroit to prevent them from carrying out the terms of the ordinance of 1894, asserting that it violated a contract made with the Citizens' Company. The state courts held that the council had no power to grant exclusive right to the Citizens' Company, and their judgment was affirmed by the supreme court.

METROPOLITAN ENGINES TESTED AT NEW ORLEANS.

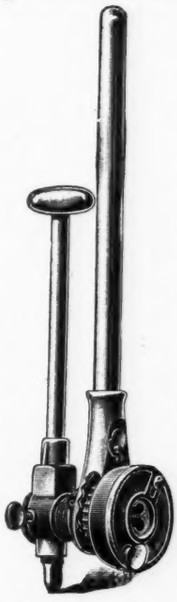
Very satisfactory results are reported in tests made recently at New Orleans with the two Metropolitan engines recently ordered for heavy service in the commercial part of the city. They were built by the American Fire Engine Company at their Cincinnati plant, and are the most powerful engines that have ever been put in service in New Orleans. The *Picayune* says: "They are of the crane-neck pattern, with platform running gear in front; the pumps are $4\frac{3}{4}$ inches in diameter, with 8-inch stroke; the steam cylinders are 8-inch in diameter, 8-inch stroke; their capacity is 800 gallons of water per minute; they embrace all the modern improvements, and heaters are also attached whereby the water in the boilers can be kept at a boiling point, which will enable them to generate steam rapidly after the fire in the furnace has been lighted. The several trial tests made were by direction of the apparatus committee and supervised by Chief O'Connor, as these gentlemen were particularly anxious to ascertain the power of the steamers and their capacity. After tests with single lines of hose and various sized nozzles, the Siamese connections were applied, and large streams were forced with tremendous velocity through the air. Finally, the power of the two engines was concentrated through a four-way Siamese connection, and the exhibition of the large stream through a $2\frac{1}{4}$-inch nozzle was one of the grandest ever witnessed in this city. Such powerful bodies of water will certainly make their mark when directed into the body of a fire. The use of these deluge sets is quite an innovation, and they will be operated hereafter." The fire commissioners present expressed themselves well pleased with the result of the tests, and the engines will be placed in commission at once.

AMERICAN FIRE ENGINE AT MANILA.

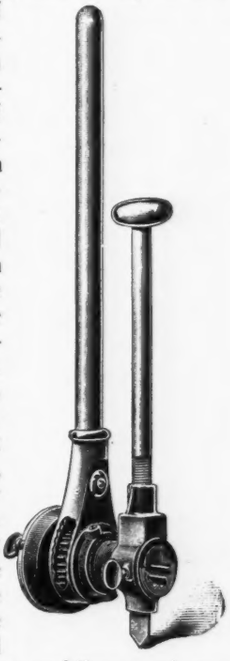
The last report of a general nature made by Consul Williams at Manila is of especial interest at this time, and alludes to the fire in that city February 6, and which caused a loss of $1,250,000. The fire was in the heart of the city, and after describing the consternation which prevailed, Consul Williams says: "The entire city would have been lost had it not been for splendid service of the American fire engine, made at Seneca Falls, N. Y. It is conceded also that with four more such engines the protection would have been perfect, and the loss avoided. I shall use my best efforts to induce the city to equip its fire department wholly from the United States, as the American engine did more work than the three European machines together." The American Fire Engine Company, we are informed, have just received an order for a steam fire engine to be placed in service at Dawson City, in the Klondike.

CLIMAX RATCHET STOCK.

The Climax ratchet stock, a tool which has met with great favor among gas and water plants, is here illustrated.



It is the only tool made combining the utilities of the ordinary die stock and pipe vise, and these features combined, for many classes of work, are far more advantageous, economical and convenient than two separate and distinct tools. The tool has been upon the market about four years, during which period every weakness and imperfection has been eliminated, and to-day it is a perfected tool, of established reputation and proven merit. It is impossible, in this brief article, to give detailed description of this very meritorious device, but full particulars will be furnished upon request by the manufacturers, the C. M. Kemp Manufacturing Co., of Baltimore, Md. The tool is especially advantageous for setting water meters, or for any pipe threading outside of the shop; and for threading pipes in a ditch, in corners, under floors, or any other close place. With this tool it is not necessary to dig up or take out whole lengths of pipe; the defective part of pipe can be cut out and the threads cut on the pieces in the ground with the greatest ease and convenience, not only saving time, but avoiding much unnecessary and disagreeable work. To cut a thread slip the tool on the pipe to be threaded until the end of the pipe comes in contact with the die; then screw up the vise handle, at the end of which is a strong vise to grip firmly the pipe, and rotate the ratchet handle, which revolves the die, and by means of the leading thread carries the die on the pipe, producing a true thread; after cutting the thread, by reversing the pawl and moving the handle reversely the die runs off the pipe. The tool is made entirely of malleable iron and steel, and will stand hard usage and treatment.



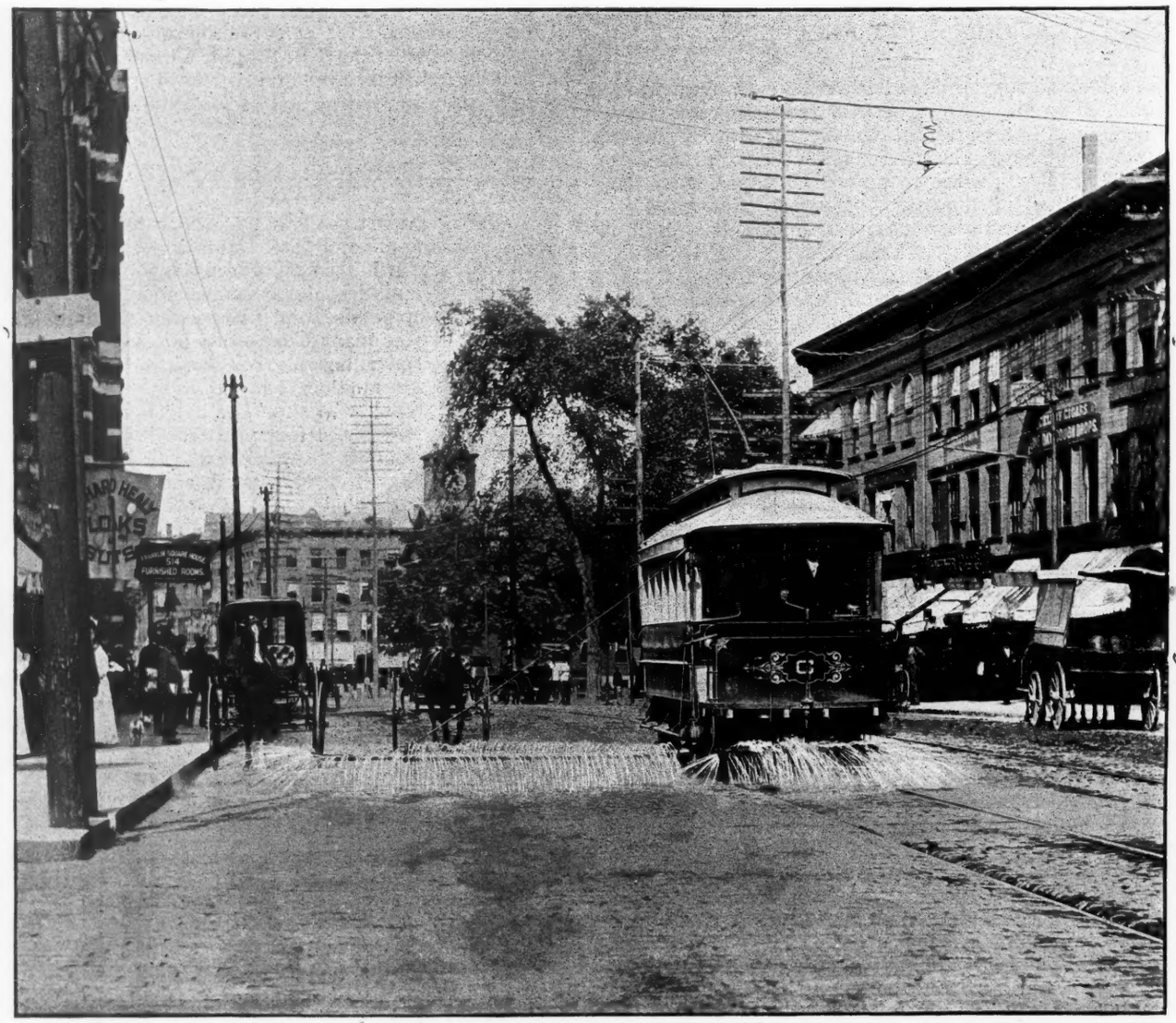
SPRINKLING OF CITY STREETS.

The watering of streets during the dusty months is now being demanded by the citizen to a greater extent than ever before, as people now begin to recognize that street sprinkling is not a side issue, but holds its place in equal importance with good drainage or good paving. There are several causes at work which a few years back were not even considered in this connection.

Leaving aside the discomforts and inconveniences that are suffered from the flying dust, merchants on our main thoroughfares find their wares practically ruined in a few weeks from dust, and the people in the residential portions leaving the doors and windows open find their costly fabrics and furniture greatly damaged by the dust, which even with closed windows seems to sift through cracks. By a scientific sprinkling of the streets, the merchant's goods are kept in better condition and more attractive to sell, and the residents can open their windows to air the house without a covering of dust settling down on carpets and furniture. In the poorer quarters the dust should be kept down for sanitary reasons.

Municipalities are beginning to realize the importance of this work, and find that it is a work that must be looked into more carefully each year, as they recognize that sprinkling heretofore has been carried on in a careless manner, with no system for a successful furtherance of this important branch of municipal legislation. It is the general method to see how cheap a city can be sprinkled, rather than how well the work can be done without much regard of expense.

The demand for better sprinkling has been the means of bringing out new devices and apparatus, and many patents have been issued for controlling the distribution of the spray upon the street. One of the most notable improvements in this direction is the car sprinkler of the American Car Sprinkler Co., of Worcester, Mass. This consists of a tank on trucks which runs over the tracks of the street railway company. At the side of the tank is a swinging perforated arm, from which the water is evenly distributed with great rapidity upon the street and track.



THE AMERICAN STREET CAR SPRINKLER.

This apparatus is exceedingly simple and effective. Since the water runs from the tanks by force of gravity, there are no pumps or anything of the kind to get out of order, and the water rushing through the perforated arm tends to force it back against the car, so should it meet with the slightest obstruction it will swing instantly to the side, where it is held by clamps. The arm is under the

perfect control of the operator, who swings it in and out as wagons and teams are passed.

As municipalities take up this question of watering, the problem of cost and how it is to be assessed equally upon the abutters of the streets, is a question of no slight importance and of great difficulty to properly adjust. A number of states have passed laws allowing municipalities to assess abutters to carry on this work, but it hardly appears that this is an equitable system, for all persons benefited do not help to pay the bills. It has been suggested by those connected with this class of work, that all main thoroughfares be sprinkled, and that the cost be paid from the general tax levy of the city. The great bulk of the people use these streets and benefit by sprinkling. Residential streets to be paid for by abutters.

Another system which has worked well in several cities is to assess two-thirds of the cost upon abutters, and take the other one-third from general tax list of city. All these different systems have disadvantages, and a proper method of assessing upon all persons benefited is difficult to form. The old fashioned way of subscription from abutters is decidedly unequitable, and is rapidly disappearing by the introduction of more modern methods.

Up to a very recent date the watering cart has gone over outlying streets perhaps once or, at most, twice daily, and at each going over the streets have been flooded to make it appear as if they were watered. The best sprinkling of streets is done by going over it lightly and often, say, four to six times daily. This, of course, necessitates extra expense, for if a cart can sprinkle six miles of street once daily, it is evident that it can sprinkle only one mile of street six times daily. Thus is shown the fallacy of cheap sprinkling.

WATER DEPARTMENT NEWS.

—The city council of Barre, Vt., has elected Charles S. Currier superintendent of water works.

—The new board of water commissioners at Springfield, Ohio, have elected C. S. Courson superintendent, to succeed George Cotter, and V. Y. Smith, secretary, to succeed W. R. Smith.

—The Los Angeles City Water Works Company has sent a communication to the city council of Los Angeles, Cal., expressing its willingness to submit to arbitration the question of the sum to be paid for the works by the city. The matter is now in the hands of the council water supply company.

—Mayor Bush and other officials of the city of Mobile, Ala., took possession of the Stein water works in that city on May 14. A board of arbitration had decided that the city could take the water works by paying the owners $31,868.58 in cash and assuming an indebtedness of $13,131.42. Mr. Walter Wood, the principal owner of the works, was formally tendered $17,000 in cash for his interest on the day of the seizure by the city. Mr. Wood refused to accept the money and litigation will now be necessary to straighten matters out.

—William Adamson and Stanley L. Conklin have been appointed receivers of the Bear River Irrigation and Ogden Water Works Company and the Bear Lake and River Water Works and Irrigation Company, of Ogden, Utah. Action was brought in the United States Court by S. M. Jarvis and others, as trustees for the bondholders, to foreclose a mortgage upon the entire property of the companies, given to secure the payment of bonds at the time of their issuance in January, 1895. The

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bonds were made payable in January, 1915, but it was provided that the entire indebtedness could be declared due upon a default in the payment of interest. It is set out in the complaint that no interest has yet been paid, that liens aggregating $150,000, and which are superior to the mortgage indebtedness, have been allowed to attach, and that taxes in the sum of $7,300 have been allowed to become delinquent. It is further set out that the business has been so managed as to imperil the property and franchises, and as an example the litigation between Ogden City and the companies is cited. The usual allegation of insolvency is also made, and the prayer is that the mortgage be decreed a lien upon the entire property of the defendants, both real and personal.

FIRE DEPARTMENT NOTES.

—August Gerstrung has been elected chief of the volunteer fire department of Elizabeth, N. J.

—Jasper Featheringill has succeeded Russell Finney as chief engineer of the fire department at New Albany, Ind.

—Chief Engineer George Knofflock, of the Mansfield, Ohio, fire department, has submitted his report for the year ended March 31, 1898. There were 72 fires during the year, 153 houses were saved, 120 miles were run, 11,900 feet of hose was laid and 1,933 gallons of chemicals were used. Total loss on buildings, $24,725; insurance, $86,400; total loss on contents, $18,460; insurance, $34,550. The expenses for the year amounted to $12,039.

—The annual report of Chief Engineer Thomas W. Lane, of the Manchester, N. H., fire department, has been published. The department responded to 150 alarms during the year; loss on buildings, $9,159.55; loss on contents, $14,109.95; insurance paid on buildings, $7,979.55; insurance paid on contents, $12,269.95. The total value of the property endangered was $150,208.50. At the close of the year the force consisted of thirty-three permanent men and 127 call men, and the value of the department property was $107,177.50.

—The annual report of the fire department of New Orleans, La., shows that the force consists of the chief engineer, five assistants, eighty-eight captains and lieutenants, fifty-four engineers and stokers, 145 firemen, a physician, a veterinary surgeon, a secretary, a machinist, a stockkeeper and a messenger. There are in service twenty-seven steam engines, seven hook and ladder trucks eleven chemical engines and one water tower. Chief Engineer Thomas O'Connor reports that during the year there were 509 alarms, and the estimated loss was $1,091,-322.

—On the morning of Memorial Day an interesting trial of the Eastman Perfection and Deluge nozzles and holder and the Defender nozzle, combining both a straight stream and a spray, was given at Passaic, N. J. The trial was witnessed by Chief Bowker, of the local fire department, members of the fire and water committee of the city council; Chief Stanborough, of the Rutherford fire department; Assistant Chief Mills, of Paterson, and a large number of firemen and citizens generally. During the progress of the exhibition, engines 2 and 3, a Clapp & Jones and a La France, both third size, were in use. When the Deluge streams were being thrown they were produced by the combined efforts of the two engines and were magnificent in size and power. Several of the ordinary play pipes of the fire department were first tried, but the clean cut and steady streams from the other nozzles rather threw those of the local department in the shade. During the trial of the Defender nozzle, straight streams of 5-8 inch and 1 1-8 inch diameter were thrown nearly two hundred feet, and at the same time a fine sheet of spray was thrown over a diameter of seventy-five feet, and in every case the stream was held and directed by one person. The work done by this nozzle received many favorable comments and it was said to be a model of its kind. The Eastman nozzle, in sizes of 1 1-8 inch and 1 1-4 inch, were next tried and they threw streams nearly two hundred feet, each stream carrying solid water to the extreme end. The streams produced from the Eastman Deluge not more than fulfilled the guarantee of the makers, and solid streams of 1 3-8 inch, 1 1-2 inch, 1 5-8

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inch and 2 inches in diameter were thrown great distances, were held and directed by one person with one hand, and during a portion of the time, a ten-year-old lad held the two-inch stream with perfect ease. The 1 5-8 inch stream reached a distance of nearly 300 feet, while the 2-inch stream threw solid water 200 feet. Gleason's Purchasing Agency are the general agents for the Eastman goods.

PUBLIC LIGHTING.

—John Losenz has been appointed superintendent of the municipal gas and electric light plants at Hamilton, Ohio, at a salary of $100 per month.

—The city of Pierre, S. D., has taken possession of the water and gas plant, formerly operated by a private corporation. The operation of the plant is now in charge of a committee from the city council and it is expected that there will be a material reduction in water and light rates under municipal control.

—Superior, Wis., will probably establish a muncipal electric light plant at an early date. The council favors the project, and a committee of five aldermen, the mayor, the city engineer, the city attorney and eighteen citizens are at work on plans for carrying it out. The cost of the plant will most likely be included in the next tax levy.

—In 1887 the city of Newton, Iowa, granted a charter to the Newton Electric Company and three years later the city decided to go into the electric lighting business itself. As the private company made lower rates than could be made by the municipal plant, the council passed an ordinance repealing the company's charter. A temporary injunction was secured by the company preventing the city from enforcing the ordinance and this injunction has now been made permanent by the United States Court.

—According to the annual report of Superintendent Patterson, the municipal electric light plant of Jacksonville, Fla., received for commercial lighting more than enough to cover the operating, extension and improvement charges for the year. The operating expenses amounted to $26,429.76, and for extensions and improvements the sum of $8,102.55 was expended. The revenue from commercial lights amounted to $35,560.49. Public lighting service amounting to $19,440, according to commercial rates, was furnished by the plant. Improvements are now being made which will nearly double the capacity of the plant.

POLICE DEPARTMENT ITEMS.

—John Campbell has been selected to succeed Lawrence Harrigan, who recently resigned the position of chief of police at St. Louis. Chief Campbell has been a member of the force for more than twenty years and has served as chief before.

—The annual parade of the New York police department took place on June 1. The men marched in five regiments, two battalions to each, ten companies making up a battalion, so that there were 100 companies in line

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of thirty-six men in each. The staffs, mounted, and bicycle squads more than brought the total up to 4,000. Acting-Chief Devery headed the procession. The chief was resplendent in a new uniform, as were all the men in line, June 1 being the date set for donning the new garb adopted for the police of Greater New York. The line of march was from the Battery up Broadway to Twenty-third street, to Madison avenue, to Fiftieth street, to Fifth avenue and to Twenty-third street, where the regiments disbanded. The parade was reviewed by Mayor Van Wyck at Madison Square. A pleasant incident was the presentation by the Mayor of the Rhinelander medal to Patrolman Frederick Stahl for his heroic deed in saving twenty lives at the Liberty Hall fire last winter.

—An ordinance to reorganize the police force has been introduced in the council at Columbus, Ohio, and will probably be adopted by the time this item is printed. The ordinance says: "The police force as now constituted by law and to be appointed by the director of public safety in pursuance thereof, shall consist of one superintendent, who shall receive a salary of $2,000 per annum; one captain, who, in the absence or disability of the chief, shall act as superintendent, who shall receive a salary of $1,200 per annum; five sergeants, who shall each receive a salary of $1,000 per annum; 105 patrolmen, who shall each receive a salary of $60 per month, from whom the director shall detail patrol wagonmen, ambulance wagonmen and mounted patrolmen, sufficient being detailed from the 105 patrolmen hereby allowed to man two patrol wagons, one ambulance wagon and four mounted men on horses; one matron to act during the day, who shall receive a salary of $50 per month; one matron who shall serve at night and receive a salary of $45 per month; two turnkeys, who shall each receive a salary of $60 per month; two engineers, who shall each receive a salary of $60 per month; two janitors, who shall each receive a salary of $50 per month; four detectives, who shall each receive a salary of $75 per month, provided, however, that in case of emergency the director of public safety may detail such number of men from the regular force to special detective duty as may be necessary, who shall be reassigned to their regular duty as soon as the emergency which made it necessary for their detail ceases to exist, who shall receive the same pay when on such special duty as regular patrolmen; three telephone operators, who shall each receive a salary of $50 per month, provided, however, that the director of public safety shall fill all vacancies that occur in said force, not exceeding 105 patrolmen in the aggregate. Provided, further, that said director of public safety may appoint not to exceed fifteen substitutes, from whom he shall fill any vacancies, temporary or otherwise, that may occur in said force, who shall before their regular appointment pass a competitive examination provided for by the rules of the department, and shall for the first year of service as a regular patrolman receive $50 per month and $60 per month thereafter, so long as he shall remain in the force. But in no case shall the force herein and hereby established, and to be maintained by this council, exceed the number of subordinate officers and patrolmen herein stipulated and prescribed."

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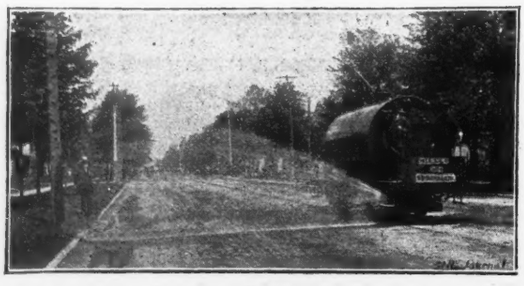

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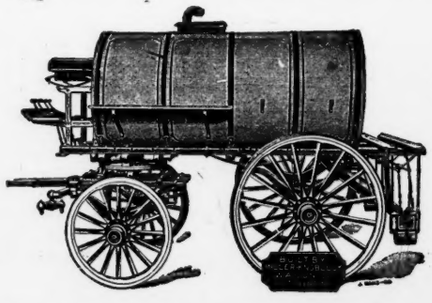

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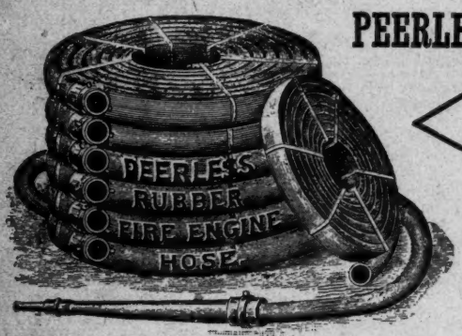

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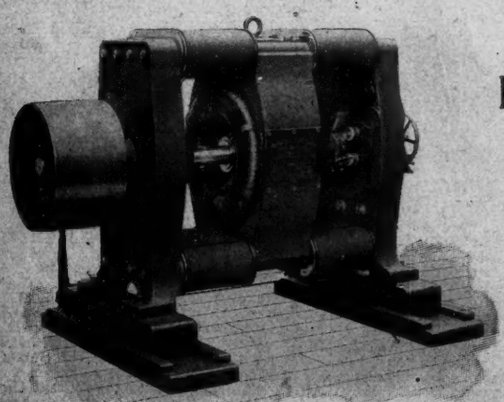

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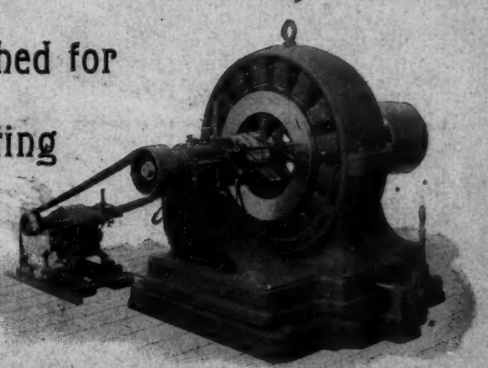

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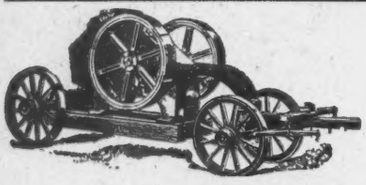

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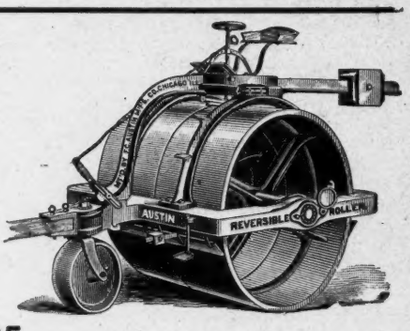

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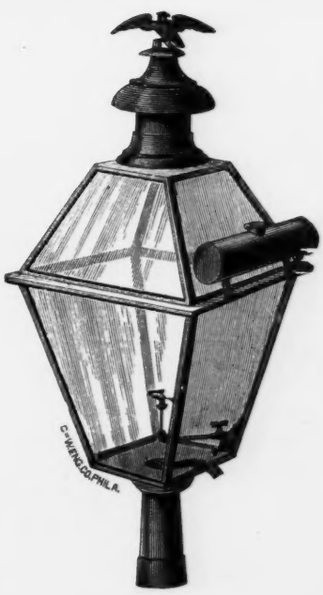

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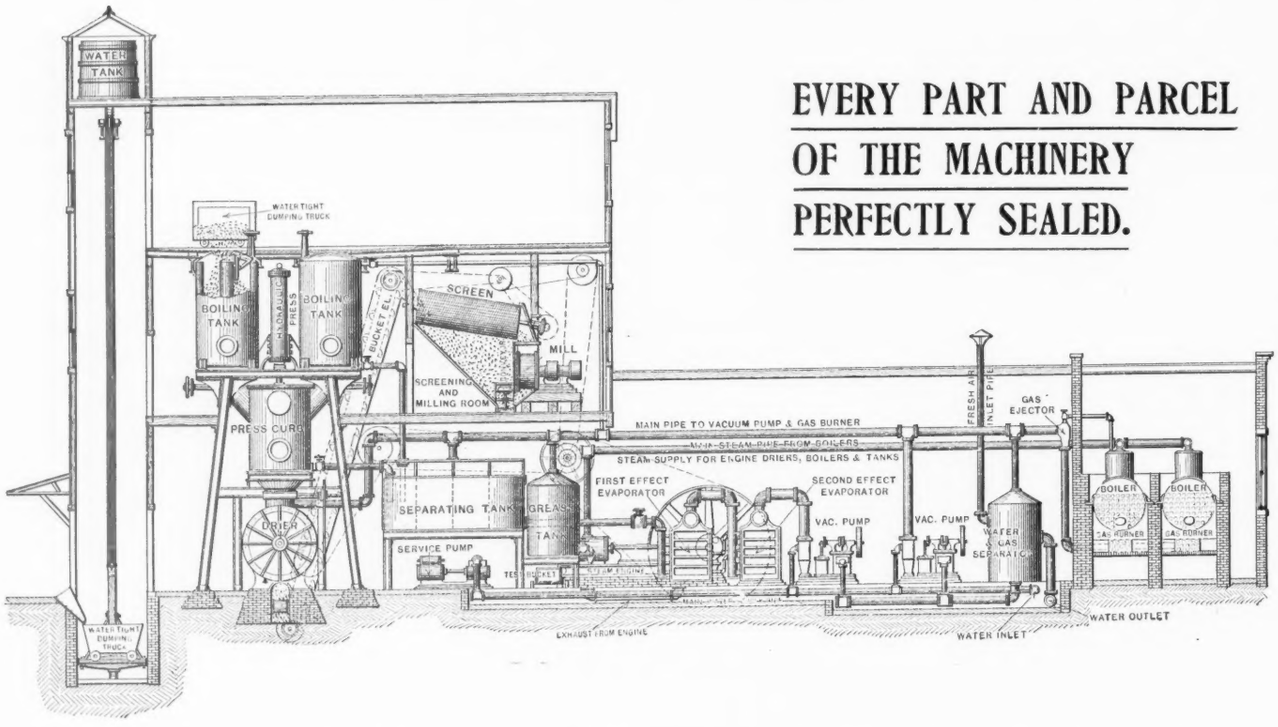

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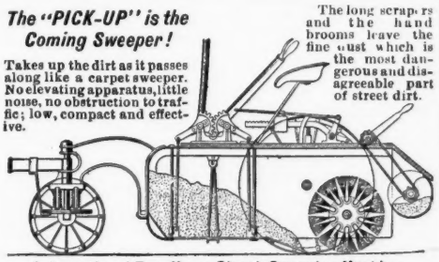

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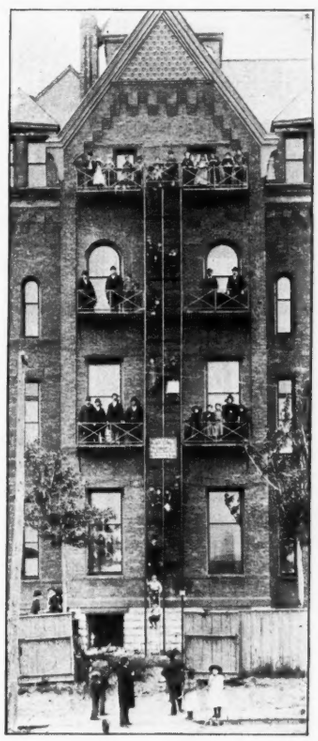

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Sir:

I am directed by the Commissioner to notify you that upon recommendation of the Chief of Department, he has authorized the expenditure of the appropriation for the purchase of "Kilfyre" Extinguishers for this Department.

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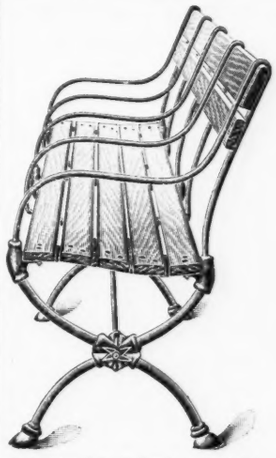

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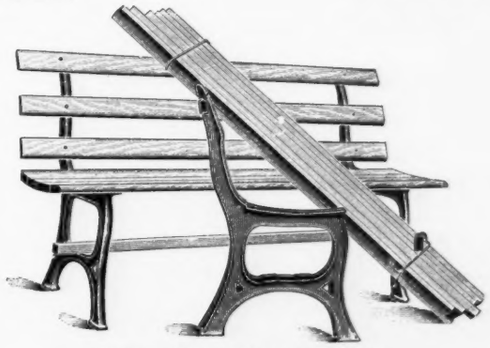

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Does not crack or run nor disintegrate.
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—The Gleason & Bailey Manufacturing Company is building another Dederick rapid raising aerial truck for New York city.

—Saco, Me., has contracted with the Manchester Locomotive Works to rebuild one of their steam fire engines with an Amoskeag boiler.

—The Hathaway hose washer will be sent to any fire department on trial. Address Gleason's Purchasing Agency, 265 Broadway, New York.

—The Kansas City Paving Brick and Tile Company, Kansas City, Mo., has been incorporated by J. R. Lillis, J. F. Glennon, James Barnes and William H. Lucas.

—Milwaukee, Wis., is the last large city added to the long list of cities throughout the country who are using the latest improved Seagrave double and single rapid hoist trussed extension ladders.

—Easton, Pa., has an Amoskeag steam fire engine twenty-nine years in service with the original tubes and boiler. A recent test of the boiler showed it to be in perfect condition for active service.

—The Des Moines Asphalt Company, Des Moines, Ia., has been organized by F. M. Stimson and J. F. N. Drake. A plant will be established for the manufacture of a natural asphaltic product into paving material.

—Colorado Springs, Col., after thoroughly investigating the various makes of hook and ladder trucks, have just placed their order for a No. 9A trussed city service hook and ladder truck with Seagrave & Co., through their representative, Mr. Julius Pearse, of Denver, Col.

—The Wrought Iron Bridge Company, Canton, Ohio, has restored the old scale of wages in force over a year ago, making an advance of 10 per cent. A reduction of

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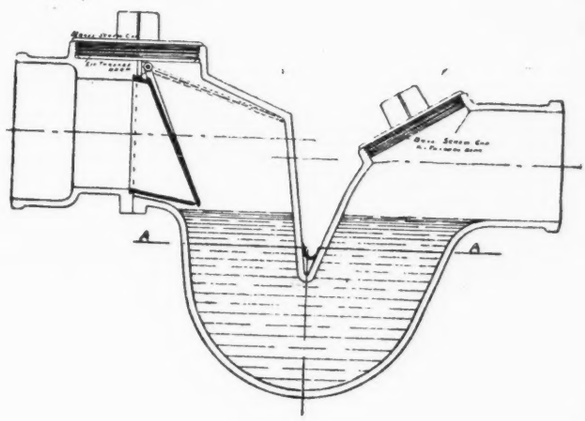

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A HOSE JACKET--DOES STOP LEAKS.
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10 per cent. was made in the wages of the workmen about a year ago on account of the hard times existing at that time.

—Champaign, Ill., has joined the throng of those progressive cities who are discarding the plain, untrussed goods and replacing them with the celebrated Seagrave trussed goods, and ordered an up-to-date city service trussed truck from Seagrave & Co., through their representative, the New York Belting and Packing Company, of Chicago, Ill.

—The Trans-Mississippi Exposition Company have just received from the well-known manufacturers of trussed goods, Seagrave & Co., Columbus, Ohio, one up-to-date trussed city service hook and ladder truck and two hose wagons, for the protection of their buildings, and after the exposition, to go into service in the Omaha fire department, having been built according to Chief Redell's specifications.

—George F. Ryan, chief of the fire department of Tuscaloosa, Ala., writes to the Gleason & Bailey Manufacturing Company as follows: "Never in the history of our beautiful City of Oaks has there been such a fine piece of work in our fire department as the hose wagon purchased of your company. Our boys are proud of it and think it the finest article ever rolled on four wheels. I heartily recommend your apparatus to any city wishing to purchase. The Seagrave trussed ladders work like a charm—I only wish we had more of them."

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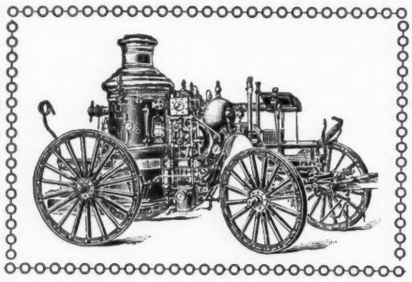

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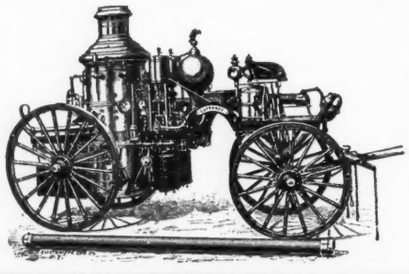

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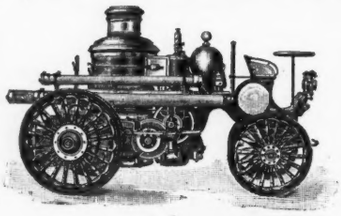

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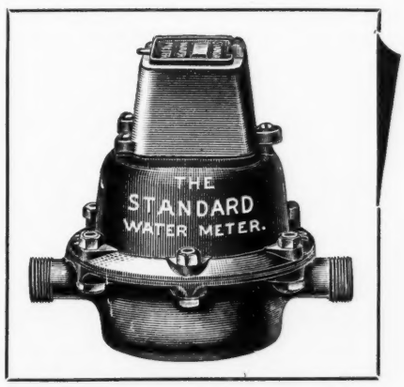

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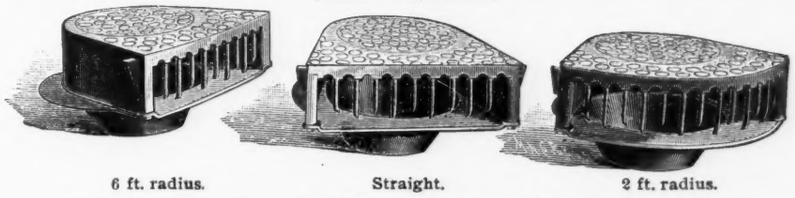
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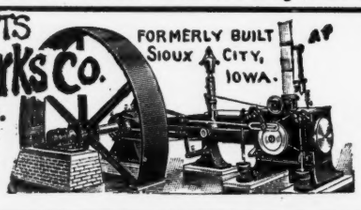

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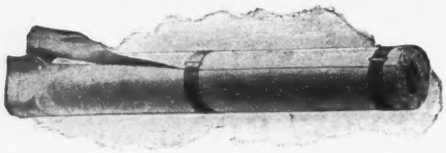

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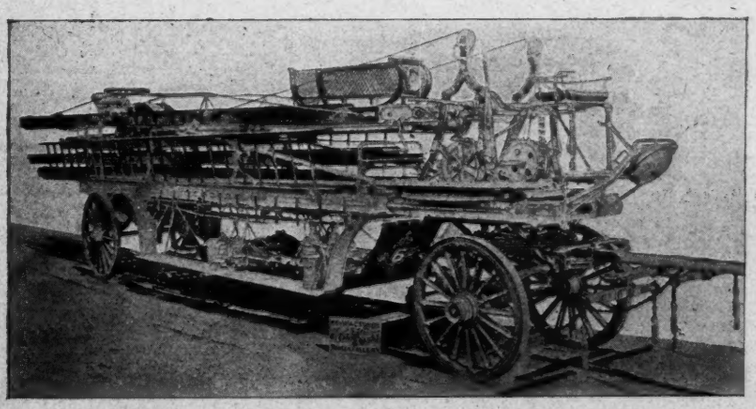

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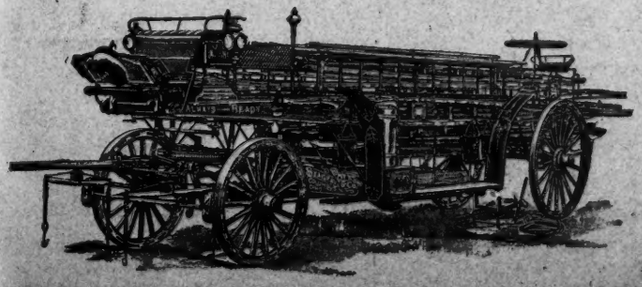

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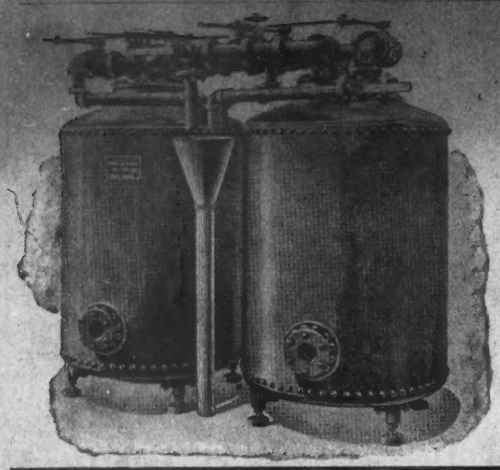

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